

UK

ZignX



User's Guide for ZignX Control Unit

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for ZignX Control Unit
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1 INTRODUCTION

ZignX makes it possible to control who has access to the PC as well as when and what they have access to. The ZignX has many functions why we recommend that, before installing the unit, you read this whole User's Guide, which briefly explains the possibilities of the ZignX. Since the installation of the ZignX includes opening of the PC tower case, we recommend that only qualified personnel install the ZignX. Please note that all procedures are carried out on your own risk.

1.1 ZIGNX DESCRIPTION

In short, the ZignX is a piece of hardware, which makes it possible to control to what extent users have access to the hard drives, CD ROM/DVD drives, CD-ROM recorder, floppy drive, NIC and/or modem of the PC. The power and reset buttons are also controlled by ZignX implying that the PC only can be turned on by an authorised user.

For example it is possible to give one single user access to hard disk #1 and the CD ROM drive whereas another user has access to hard disk #2, the floppy drive, NIC and modem. Access to the various units is controlled directly by hardware and consequently it is impossible to bypass the limitations unless the PC is broken into. The ZignX can be set up to detect such a break-in and consequently lock all units until the SuperUser enters the SuperUser password.

If for instance user #1 does not have access to neither NIC nor modem, it is impossible for him/her to gain access to the internal network and the Internet. Furthermore, if access to the floppy drive is denied, it is impossible for the user to extract data from the computer. User #2 can have access to both the internal network and the Internet (via NIC and modem respectively), but the user does not have access to hard disk #1 and CD ROM. Consequently, it is not possible for user #2 to gain access to the data on hard disk #1 nor possible to use the CD ROM drive for installation of programmes.

Moreover, the period of time during which a user has access to the PC can be limited. For instance it can be defined that user #1 only has access to the computer Monday through Friday 8 a.m. to 4 p.m., while user #2 has access 7 days a week from 6 a.m. to midnight.

A user gains direct access to a ZignX PC either by entering a pin code and/or by inserting a Smart Card. If a company has installed ZignXs in several PCs, the access to one or more of the computers can be limited by employing Smart Cards. Consequently, some users have access to all PCs in one department, whereas other users also have access to PCs in other departments.

A company can be divided into several logical units – so-called “groups” i.e. domains – for instance “Sales”, “Stock”, and “Production”, and via these domains and Smart Cards the access to the PCs can be limited. A ZignX is always connected to at least one domain, which as standard is called “All” (the name can be changed, though). A Smart Card can be used in up to six different domains.

1.2 HOW THE ZIGNX WORKS

The ZignX controls the access to the PC units in one of two ways – either by log in on the ZignX keypad or by inserting a Smart Card.

The disconnection of every drive such as hard drives, CD ROM/DVD ROM, CD recorder and floppy drive is done directly by cutting off the power supply to each drive. The ZignX can control up to 8 drives and each of them is power supplied directly by the ZignX. If a user does not have access to a drive, the drive will not be power supplied when the PC is turned on. Drives of all brands can be used as the ZignX only controls the power supply to the unit and not the functionality of the unit.

If ZignX shall control the NIC and modem, special ZignX versions of these devices must be installed. Both devices are controlled by a set of cables leading to and from the ZignX Control Unit. The ZignX can control two of each kind of device, i.e. two NICs and two modems.

In order to increase the level of security in connection with the NIC, the ZignX keeps the network connection under constant surveillance. If the connection is cut off e.g. during an attempt of unauthorised break-in, the NIC concerned is deactivated and can only be activated by the SuperUser entering the special SuperUser code. Additionally, it is possible to detect if the tower case has been opened, however, this feature implies that the tower has an intruder switch installed and that the switch is connected to the ZignX.

1.3 DESCRIPTION OF THE CONTENTS

- 1 ZignX Control Unit
- 1 Connecting cable J304 "Peripherals 2"
- 1 Connecting cable J305 "Peripherals 1"
- 1 Power cable (multi coloured)
- 1 Wire cable w/ 2 conductors (orange & black) "RESET"
- 1 Wire cable w/ 2 conductors (red & black) "POWER"
- 1 Serial flat cable 9 pin D-SUB Female on bracket to 10 pin IDC
- 1 Serial cable DB9 Male to DB9 Female
- 4 M3 screws
- 1 Hardware User's Guide
- 2 Smart Cards

Ensure that the PC user's guide and a medium sized screwdriver are available.



2 INSTALLING THE ZIGNX IN THE PC

The following chapter describes the installation of the ZignX, but if you are not familiar with hardware installation, we recommend that your ZignX supplier carry out the installation.

2.1 HARDWARE REQUIREMENTS

There are the following system requirements before beginning the installation of the ZignX:

- The power supply and the PC case must be of the ATX type
- The PC must have an available 5 1/4" slot (i.e. space equivalent to the one of a CD-ROM drive)
- Modem and NIC must be of ZignX brand, if they are to be controlled by the ZignX. Ordinary modems/NICs can be used when the ZignX is installed, but cannot be controlled by it
- 1 IDE cable can be connected to 2 Ultra DMA 33/66/100/133 hard drives, which can be used as MASTER and SLAVE respectively

Please compare appendix E on hard drives.

2.2 STRUCTURE OF THE ZIGNX

The ZignX Control Unit is a hardware unit consisting of a front with a display and keypad and the backside whereto the drives are connected. In the following paragraphs the backside is described while the front is dealt with in chapter 3 "Set up".

As shown on the sticker on the ZignX compare appendix C, the two plugs to the left are intended for the power cable to the hard drives, floppy drive etc. In the middle you will find two similar plugs whereto the power supply of the PC (to J302) and the motherboard (to J303) are connected. To the right you will find three vertical plugs. In the plug to the left (J308) the ZignX NIC and modem are connected. The plug in the middle (J306) is used for plugging in the serial cable for configuring the ZignX via the enclosed Windows software. The plug to the right (J307) is used for connecting the motherboard, the PC power button and - if any - a future temperature sensor. The last plug on the ZignX is right under these three last mentioned plugs and is used for the intruder function, which can detect break-ins in the tower case and for connecting the reset button.

2.3 BEFORE INSTALLING THE ZIGNX

Please make a note of the following before installing the ZignX:

- Ensure that the power cable is unplugged
- Use a cross-point screwdriver
- Make sure that you have the PC handbook ready. Especially the handbook for NIC/modem (if these are to be replaced and controlled by ZignX) and the handbooks for the hard drives, CD ROM and DVD drives too
- Please be aware of static electricity. When the PC case is opened there is direct access to some of the sensitive electronic components and several of these components can be damaged by static electricity. The best way to discharge oneself is to grab a hold of the metal of the case before touching any components devices. Most optimal one should be connected to the PC case with an antistatic bracelet

2.3.1 SETTING UP THE BIOS

In order for the ZignX to work under optimum conditions, the following features in the PC must be changed:

- "Halt on error" set to:
"All, but diskette" (the PC then boots even though the ZignX has disconnected the floppy drive) or
"Halt on no errors"
- "IDE Primary Master" set to:
"AUTO" (the PC auto detects a certain IDE unit /IDE hard disk)
- "IDE Primary Slave" set to:

"AUTO" (the PC auto detects a certain IDE unit /IDE hard disk)

- "IDE Secondary Master" set to:
"AUTO" (the PC auto detects a certain IDE unit/IDE hard disk)
- "IDE Secondary Slave" set to:
"AUTO" (the PC auto detects a certain IDE unit /IDE hard disk)
- "PWR-OFF Mode by PWR-BTTN" set to:
"Delay 4 Sec." / "suspend" (depending on the type of BIOS) (in order for the ZignX to start and shut down/suspend Windows)

"Power ON":

If the feature "Power ON Function" is optional, set it to "Button only"

2.3.2 USB PORTS

If high security is desirable, the USB ports – if any – must be disabled in the BIOS so that a user cannot connect an external hard disk, CD ROM or network. If you are to work with USB devices, the installation of a ZignX USB controller, which can be controlled by ZignX, is recommended.

2.4 INSTALLATION

Please note that if the ZignX has to control an existing modem and/or NIC, the old units must be uninstalled and replaced by ZignX makes. It should be described in the PC user's guide how to install (uninstall) the modem/NIC.

- Open the PC case (compare PC user's guide)
- Remove the 5 ¼" plastic cover and the metal plate (if any) which cover the 5 ¼" space
- Place the ZignX in the PC (Start by just placing the unit in the PC case, as it is easier to arrange the cables, if the ZignX is not fastened with screws)

2.4.1 CABLING

Before the ZignX was installed, the power and reset buttons (if any) were connected directly to the motherboard, but in order for ZignX to control these two buttons, they must be connected to the ZignX.

When the ZignX controls the power button, it controls the start up of the ZignX PC and when it controls the reset button (if any), unintended restart of the PC is avoided.

In the ZignX package are enclosed two small cables: A red & black one and an orange & black one.



If the power and reset plugs on the motherboard are multiplugs (as are the ones in for example many HP, Compaq and IBM machines), please require from your ZignX supplier an adapter plug, which fits into your machine.

2.4.1.1 POWER BUTTON

- Locate the power button on the tower case
- Follow the cable on the backside of the button down to the motherboard
- Unplug the cable from the motherboard, but make a note of where exactly the cable was connected
- Plug the cable into the extreme right vertical plug of the ZignX (J307) – pins 7 & 8
- Plug the other end of the red & black cable marked PW-MB in the extreme right vertical plug of the ZignX (J307) – pins 5 & 6

2.4.1.2 RESET BUTTON

- Find the reset button on the tower case
- Follow the cable on the backside of the button down to the motherboard
- Unplug the cable from the motherboard, but make a note of where exactly the plug was connected
- Plug the cable into the lowest vertical plug of the ZignX (J309) – pins 3 & 4
- Plug in the end of the orange & black ZignX cable marked "RESET" exactly where the old cable was connected on the motherboard
- Plug the other end of the orange & black cable marked RS-MB in the extreme right vertical plug of the ZignX (J307) – pins 1 & 2

2.4.1.3 POWER SUPPLY TO THE UNITS

In the ZignX package are enclosed two almost identical multi coloured cables.



- Plug cable #1 marked "J305 Peripherals 1" into the upper left horizontal plug of the ZignX
- Plug cable # 2 marked "J304 Peripherals 2" into the lower left plug of the ZignX

- Connect the 2 male plugs marked "J1" (supplying ZignX with power from the power supply) with the 2 female connectors from the power supply of the PC

2.4.1.4 FLOPPY DRIVE

- Disconnect the power cable from the drive (the little white plug)
- Plug the cable marked FDD (Floppy Disk Drive) (located on the cable marked "J305 Peripherals 1") into the floppy drive

2.4.1.5 HARD DRIVE(S)

- Unplug the power cable from the hard disk which will be selected as hard disk #1
- Plug the cable marked "6-HDD1" (located on the cable marked "J305 Peripherals 1") into the hard disk

If two hard drives are to be ZignX controlled, the above-mentioned procedure is repeated, but use the ZignX power cable marked "8-HDD2", which is located on the cable marked "J305 Peripherals 1" for hard disk # 2.

The procedure is repeated if three or more hard drives are to be controlled by the ZignX, but for hard drives #3, #4, #5, and #6 please use the ZignX power cables marked "2 OUT5", "4 OUT6", "5 OUT7" and "7 OUT8" respectively (located on the cable marked "J304 Peripherals 2"). The number written after "OUT" indicates which exit a certain hard disk is connected to.

Regarding IDE hard drives — two hard drives can be connected to the same IDE ribbon cable, — compare appendix E.

2.4.1.6 CD ROM/DVD ROM OR OTHER IDE DRIVE (ZIP, JAZ OR TAPESTREAMER)

- Disconnect the power cable of the CD ROM/DVD ROM
- Plug the cable marked "3-CD/DVD" (located on the cable marked "J305 Peripherals 1") into the CD ROM/DVD ROM drive
- If more than one drive must be controlled by the ZignX, the above-mentioned procedure is repeated, but for drives #2, #3 or #4, use the remaining available ZignX power cables marked "2 OUT5", "4 OUT6", "5 OUT7" and "7 OUT8" respectively (located on the cable marked "J304 Peripherals 2")

The number after "OUT" indicates which exit a certain drive is connected to.

2.4.1.7 MOTHERBOARD/POWER SUPPLY

1 cable as shown is enclosed in the ZignX package.



From the power supply the ATX cable is connected to the motherboard.

- Remove the ATX plug from the motherboard
- Plug the cable into the upper right white horizontal plug (J302) of the ZignX. One end of the multi coloured cable is marked "To Motherboard"
- Plug it in the motherboard
- Plug the cable marked "To J303" into the lower right white horizontal plug (J303) of the ZignX

There may be several power cables from the power supply to the motherboard in Pentium 4 machines, however, it is only the 20-pin ATX power cable that must be connected to the ZignX. The other cables remain connected as they are.

2.4.1.8 SERIAL PORT

If the ZignX is to be configured via the enclosed Windows software, the serial port of the ZignX must be connected to the serial port of PC. Use the enclosed serial cable.

- Install the 9-pin outlet flange on the back of the PC tower case
- Plug the other end of the cable into the right vertical black inlet to the right on the ZignX (J306)



2.4.1.9 INTRUDER SWITCH (IF ANY)

The intruder switch function can be used to detect break-in in the PC tower case. If the tower case is equipped with such a switch, the cable of the switch must be connected to the ZignX inlet marked "I-SW" (J309) – the two left pins 1 & 2.

If the tower case on the contrary does not have a switch installed and you wish to exploit this feature, such a switch can be bought separately and installed. Contact your ZignX supplier.

2.5 TERMINATION OF CABLE INSTALLMENT

- Push the ZignX in place so that it is in flush with the front side of the PC tower case
- Screw in the 4 enclosed M3-screws (If other than the enclosed ones are used, the max. length is 10 mm)
- Assemble the PC tower case
- Plug in the main power cable

The ZignX hardware is now installed completely.

- Turn on the power

3 SET UP

The front of the ZignX consists of 3 parts i.e. a Smart Card reader/writer, a display, and a keypad. The display of the ZignX is mainly used for logging in and changing the set up of the ZignX. If the ZignX has not been used for 10 minutes, the background lighting of the display automatically turns off, but the lighting time can be changed or completely switched off by ordinary users.

The ZignX keypad can be used for logging in/out and for manoeuvring the ZignX menu system. Some of the keys on the keypad are multifunctional and those are described in detail in appendix B.

Furthermore, it is possible to log in/out of the PC with the Smart Card reader/writer. The Smart Cards are programmed from the SuperUser profile. Enclosed in every ZignX package are 2 Smart Cards, but additional Smart Cards can be bought at your ZignX supplier.

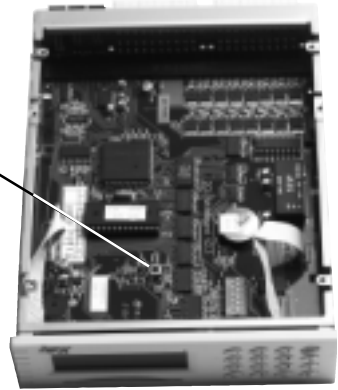
3.1 FIRST TIME THE ZIGNX IS TURNED ON

3.1.1 SETTING TIME & DATE

The first time power is switched on, the display reads "Change Pin code Key In SuperUser Pin code:"

Note that the pin code is default set as 0 (zero).

If the ZignX has already been assigned a SuperUser pin code, the ZignX can be reset via the little built-in button marked "System Reset", which is placed inside the ZignX. To reset the ZignX, turn off power to the PC, unscrew the two screws on the upper side of the ZignX, open the ZignX, hold down the "System Reset button" and turn on the power. Then release the button. The ZignX is then reset, enter a new SuperUser password and set up the ZignX again.



The set up is cancelled when pressing "No". If a wrong entrance is keyed in, the set up of time & date can always be changed from the SuperUser profile.

- Enter the desired code
- Confirm by pressing "Yes"

The display then reads "Change Pin code Please confirm pin code:"

- Re-enter the pin code
- Confirm by pressing "Yes"

The display now reads "Set time and date" and the cursor marks "hour"

- Use the arrow keys to change the hour.
- Confirm by pressing "Yes"
- "Minutes" are changed likewise
- Confirm by pressing "Yes"

The date is changed in the same way as the time, but when setting the year, please note that every digital are set separately.

- First set the century
- Confirm by pressing "Yes"
- Then set the year
- Confirm by pressing "Yes"

3.2.1 SETTING UP PROFILES

It is described in this section how profiles employed by ordinary user are configured.

We recommend that you use the enclosed Windows software for setting up ZignX profiles and for creating Smart Cards, as it is much easier instead of setting it up via the ZignX keypad.

Install the enclosed Windows software and follow the instructions in the enclosed software user's guide "ZignX Management Software". If you have the software programme, skip to paragraph 3.4. If you have lost the software, it can be downloaded from www.zignx.net

Configuring the ZignX on the keypad:

- Log into the SuperUser profile

The display reads "Choose profile * SuperUser"

- Choose "SuperUser" – confirm by pressing "Yes"
- Enter the chosen SuperUser code
- Confirm by pressing "Yes"

The computer now starts in SuperUser mode.

- Choose menu no. 2 "Edit profiles" in the SuperUser start menu by using the arrow keys
- Confirm by pressing "Yes"

ZignX has the following pre-defined profile names, which are changeable:

```
SuperUser
1 All on
2 Net user
3 Secure user
4 Profile 4
5 Profile 5
6 Profile 6
7 Profile 7
8 Profile 8
9 Profile 9
```

As an example, profile no. 1 is in the following changed to "All on":

- Choose profile no. 1 "All on" by using the arrow keys
- Confirm by pressing "Yes"

The following features are changeable and described below:

1. Profile name (change the name of the profile)
 - 1.1 Hold down "Shift" until the old profile name has been erased
 - 1.2 The arrow in the right corner indicates whether you are writing in capital letters or lower case letters. Switch between the two by pressing "Shift"
 - 1.3 The new name is typed in by pressing the buttons 0 – 9. As an example the letter "E" is chosen by pressing the button "3" three times. Pressing "0" twice makes a space. Confirm name by pressing "Yes"
2. Pin code (change profile pin code)
 - 2.1 If no pin code is preferred, press "Yes" without entering a code. If a code is preferred, enter the preferable numeric pin code by pressing the buttons 0 – 9. Up to 8 digits can be chosen. Confirm by pressing "Yes". "No" is equivalent to "undo" / "do not save"
3. Time limitation (change the period of time during which the profile is active)
 - 3.1 As it is easier to view the options via the enclosed Windows software, we recommend using the software for setting the time limitation
4. Units (change which units (hard drives, drives etc.) the profile has access to)
 - 4.1 ZignX can control up to 8 drives / power units as well as two ZignX NICs/modems

```
FDD (floppy)
CD/DVD (CD / DVD)
HDD1 (hard disk 1)
HDD2 (hard disk 2)
Out5
Out6
Out7
Out8
NIC
Modem/NIC
```

The units, which the profile may have access to, are activated as follows:

- 4.2 Choose which units shall be activated/deactivated by using the arrow keys. Use the "Yes" button to switch between active and deactivate. A * (star) indicates that the unit is active. When the units have been defined, press "No" for leaving the menu. Changes are saved when leaving menu no. 2 "Edit profiles" completely.
5. Reset button (choose whether the Reset button on the tower case can be used by the user).
- 5.1 If desirable to activate the Reset function, press "Yes" and a * (star) appears next to "Reset button".
- 5.2 If desirable to deactivate the Reset function, press "Yes" again and the * (star) disappears.
6. Power button (change whether the Power button can be used to turn off the PC by the profile).
- 6.1 If desirable to activate the Power function, press "Yes" and a * (star) appears next to "Power button".
- 6.2 If desirable to deactivate the Power button function, press "Yes" again and the * (star) disappears.
7. Code from card (determine if the profile must enter a pin code when inserting the Smart Card).
- 7.1 If the profile has a code, 1 of 2 possibilities can be chosen:
 - a) Before the profile is started, the user must enter the code when inserting the Smart Card.
 - b) ZignX reads the code on the card and the profile is started when the Smart Card is inserted.
- 7.2 A * (star) indicates that it is not necessary to enter a code when inserting the Smart Card for activating a profile, as a * (star) indicates that it is accepted that the ZignX reads the code on the Smart Card.
8. Keyboard log in (change whether the name of a profile (e.g. All On) shall appear on the display, for example for logging in via keypad without Smart Card).
- 8.1 A * (star) indicates if the name of a profile shall appear, when the ZignX is started and thereby if a certain profile can be started without inserting a Smart Card.
9. PC auto start (choose whether the computer starts when a user inserts his/her Smart Card or if the user has to press the Power button on the PC first).
- 9.1. Logging in via the ZignX keypad is standard set-up.
- 9.2 A * (star) indicates that it is not necessary to press the Power button in order to start the PC.

3.2.2 GROUPS (DOMAINS)

A ZignX is always connected to at least one domain and as a standard that domain is called "All", but that can be changed. A Smart Card can be used in up to six different domains each of 15 characters. The ZignX medical version, however, has up to 20 domains each of 5 characters. Company PCs can therefore be divided in several logical units – so-called "groups" i.e. domains – for instance "sales", "storeroom", and "production area", and via these domains and Smart Cards limit the access to the PCs.

The SuperUser can change the name of a group by choosing the menu "Group name". The keys have the same functionalities in the same way as when changing the name of a unit (compare appendix B).

3.3 TURNING ON AND SHUTTING DOWN THE PC

3.3.1 GETTING STARTED

Depending on how the ZignX is set up, a user can log in on (and thereby turn on) a ZignX PC in one of two ways; either by choosing a profile directly on the ZignX keypad or by inserting a Smart Card, which is configured to work on the ZignX in question.

If the system administrator has made it possible to log in via the ZignX keypad, one or more profiles will appear on the ZignX display. Choose a profile by using the arrow keys and verify the choice by

pressing "Yes". If the profile has a pin code, enter the code and verify by pressing "Yes". The PC then turns on.

A Smart Card works similarly. When the card is inserted a list of accessible profiles appear. If the card has a pin code, this code must be entered first and verified by pressing "Yes". Choose a profile by using the arrow keys and enter the pin code – if any.

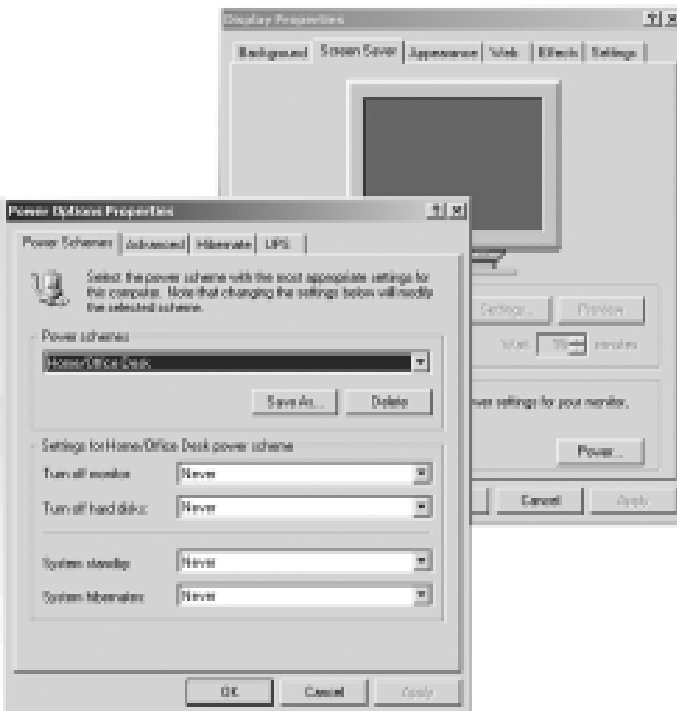
If the card is programmed with only one profile, this profile starts automatically when the card is inserted unless a pin code has to be entered.

3.3.2 SETTING UP AND CLOSING DOWN WINDOWS

Advantageously, the ZignX can use the hibernate function of Windows ME, 2000 or XP, which reduces the start up time considerably as the PC does not have to start all over when the user re-opens a hibernated profile. If your PC does not support "hibernation", Windows will open as usual each time.

Windows 98 and 98SE do not support hibernation. As a rule of thumb all ZignX PCs support the Windows function hibernation, but in any case we recommend that you check whether your PC supports hibernation by following the instruction below:

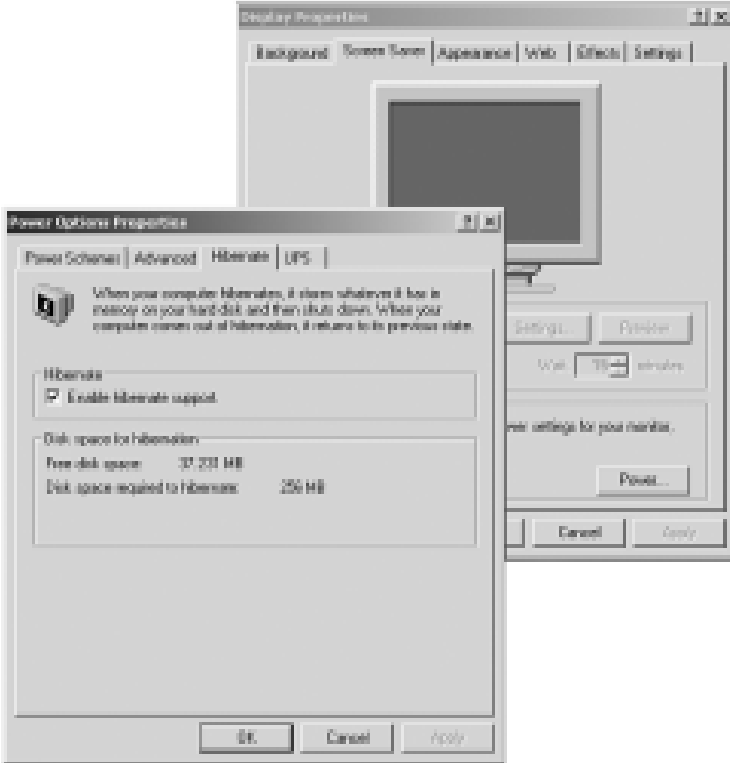
- Right-click anywhere on the desktop and choose "Properties"
- Choose the tab "Screen Saver"
- Press the button "Power" and the following screen appears if your PC supports hibernation:



However, if your PC does not support hibernation, choose the tab "Advanced".

- Choose the tab "Power buttons" and choose "Shut down" in the box reading "When I press the power button on my computer :"
- Click "OK" and exit the menu.

If the PC supports hibernation, choose the tab "Hibernation" and the following screen appears:



- Mark "Enable hibernation support"
- Click "OK"

3.3.3 CLOSING DOWN ZIGNX

When using either of the operating systems Windows ME, 2000 or XP:

1. If logged in on keypad: Enter the main menu of the ZignX and choose option #1 "Turn off computer".
2. If started the computer by inserting Smart Card: Withdraw card.

If using another operating system, which does not support hibernation, close down the system as usual and then choose one of the abovementioned options on the ZignX.

The SuperUser profile, however, works differently why the operating system always must be closed down as usual when logged in as SuperUser.

To exit the SuperUser profile, press "No" in the main menu on the ZignX. The ZignX display then reads "Quit SuperUser". Confirm by pressing "Yes".

3.4 ZIGNX DISPLAY

The contrasting colour, brightness and time period for turned on background lightening are adjustable features and they are altered via the menu "Display options". Contrasting colour and brightness are adjusted via the menus "Contrast" and "Light" respectively.

The time period for how long the background lighting is on is set via the menu "Light off". Choose from 1-50 minutes or "never". 10 minutes is set as standard. Mark the desired time period and press "Yes". The menu is then exited automatically. The chosen time period is marked with a * (star).

The contrasting colour is adjusted via the menu "contrast". Choose the desired contrasting colour by using the arrow keys. Confirm by pressing "Yes".

3.5 LANGUAGE

The Zignx is default set to communicate in English, but that can be changed in menu no. 8. The chosen language is marked with a * (star).

3.6 CONFIGURATION

We highly recommend that the configuration of the units is carried out by using the enclosed software or download it from www.zignx.net

The rest of this manual is superfluous when using the windows software.

3.6.1 UNITS (DEVICES)

One of the main purposes of the ZignX is to control which users have access to which parts of the PC and when. Enter the menu "Units" in each profile and determine which users can use which devices.

As a standard there are three active profiles (i.e. three profiles, which have access to at least one hardware device) – compare appendix A; 0: "Super User", 1: "All on" and 2: "Net User". The remaining profiles do not have access to any units and are therefore considered inactive. If a profile does not have access to any devices, it is automatically not shown in the display when logging in.

The ZignX can control up to ten units/devices, which as a standard are called 1: HDD1, 2: HDD2, 3: CD/DVD 4: FDD, 5: Out5, 6: Out6, 7: Out7, 8: Out8, Net and ModemNet. Naturally, it is not certain that a device is connected to all ten exits, which the ZignX does not keep track of, why all the devices will appear on the list no matter how many exits are in use.

Each unit/device can be disabled and enabled in every profile by entering the menu "Units" and by using the arrow keys locating the unit in question and then disable/enable it by pressing "Yes". A * (star) in front of a unit indicates that the unit is enabled.

We recommend that the ZignX is configured via the enclosed software (compare paragraph 3.2.1).

3.6.2 RESET/POWER BUTTON

For each of the nine user profiles it is possible to determine access to the Reset and/or Power buttons. Whether a user has access or not is determined in the menus "Power button" and "Reset button", however, contrary to the previous menus, it is not necessary to enter a sub menu. Just enable or disable the button in question by pressing "Yes". The user of the profile can use the button(s) marked with a * (star).

3.6.3 SMART CARD OR KEYPAD LOG IN

It is possible to log in via either the ZignX keypad or a Smart Card, but in order to do so, the system administrator must have enabled the option in the profile, which is done via the menu "Edit profiles", choose relevant profile and "Keyboard login". Confirm by pressing "Yes". If keypad log in is marked with a * (star), the option is already enabled.

3.6.4 AUTO START OF PC (NOT THE SUPERUSER)

Additionally, it is possible to determine whether the PC should start automatically, when a user logs in on a profile. This feature must be enabled in the profile, which is done via the menu "Auto start of PC". Confirm by pressing "Yes". A * (star) indicates that the PC starts automatically when a user logs in.

3.6.5. VIEWING A PROFILE

If you would like to view the set up of a certain user profile, exit the SuperUser profile and open one of the nine user profiles via the menu "Edit profile". A list of the nine profiles appears. By using the arrow keys and choosing a profile by pressing "Yes", the profile starts directly from the SuperUser profile. If it is attempted to choose an inactive profile, a message informs you that the profile is not active and the ZignX returns to the menu "Edit profile".

3.6.6 USING SMART CARDS

Smart Cards makes it easier for the users to log in as well as providing the company with a series of extra possibilities. For example, it is possible to configurate the ZignX so that access to the PCs only can be obtained by users inserting Smart Cards. Each user is handed a Smart Card, which gives access to one specific profile. The Smart Card feature can be combined with "domains" in order for users to be able to gain access to more than one PC.

As the pin code to one or more profiles is stalled on the Smart Card, the user-friendliness is increased, as the user does not have to know nor remember the code. The user simply inserts the card in order to get started.

The chip on the card must face upwards and inwards when inserted.

3.6.6.1 CREATING SMART CARDS

When creating Smart Cards, enter the menu "Card functions" and "Create card", which has the following submenus: Username, Pin code, Language, Open Time, Add profiles and Domains. In the menu "Username" a username can be stalled on the card. If a pin code is required for using the card (a pin code to be keyed in before the PC can start up) such a pin code can be determined in the menu. The code may consist of maximum eight characters.

The language, which the ZignX speaks when a card is inserted, is set in the menu "language". The chosen language is marked with a * (star).

The time limitation determines when the card can be used, but please note that the profile as well can have time limitation. If both time limitations are not kept, the user will not gain access to the PC.

In the menu "Add profiles" the 9 profiles of the ZignX are listed. It is optional to stall one or more of these profiles on the card (use the arrow keys and confirm by pressing "Yes").

When a profile is activated, the ZignX asks which pin code should be connected (profile code or card code). When stalling the pin code of the profile on the card, it is not necessary to key in the code, when logging in via the Smart Card.

If the Smart Card is to be used in more than one PC, the card can provide access in up to 6 domains/groups. When a card is created, the domain/group "All" is stalled on the card as standard.

It is important to remember, however, that the card must belong to the same domain as the ZignX. If the name of a ZignX domain is changed – without changing the names of the cards being used on the ZignX in question, some users may not be able to use their cards (i.e. start the PC).

3.6.6.2 EDITING SMART CARDS

Editing a Smart Card is carried out in the same way as when a card is created (compare the paragraph above). Only please keep in mind that a Smart Card only can be edited on the ZignX it was created on. If a card is to be edited on another ZignX, the card has to be deleted on the initial ZignX and then created once again.

3.6.6.3 TESTING/ DELETING SMART CARDS

Enter the menu "Card functions" and "Test card" for viewing the contents of the card, however, please be aware that the card is deleted at the same time.

To delete a card, enter the menu "Delete Card". The card can then be used in the same or another ZignX.

3.6.6.4 COPYING SMART CARDS

If several cards are to look alike – or almost, e.g. for a whole department, time can be saved by using the menu "Card functions" and "Copy card" that can help create many identical Smart Cards easily and fast. The cards can have the usernames or the like changed via the menu "Edit card".

APPENDIX A: ZIGNX MENU OVERVIEW

- Select profile
- SuperUser
 - 0 Exit
 - 1 Set time and date
 - 2 Edit profiles
 - 0 SuperUser
 - 0 Exit
 - 1 Pin code
 - 2 Devices
 - Code from card
 - Keyboard login
 - 1 All on
 - 0 Exit
 - 1 Profile name
 - 2 Pin code
 - 3 Open time
 - 4 Devices
 - Reset buton
 - Power button
 - Code from card
 - Keyboard login
 - Auto start of PC
 - Wake On LAN
 - 2 Net user...
 - 3 Time format (24 H or 12 H)
 - 4 Card functions
 - 1 Edit card
 - 1 User name
 - 2 Pin code

APPENDIX A: CONTINUED

- 3 Language
- 4 Open time
- 5 Add profiles
- 6 Domains
- 2 Create card
 - 1 User name
 - 2 Pin code
 - 3 Language
 - 4 Open time
 - 5 Add profiles
 - 6 Domains
- 3 Delete card
- 4 Test card
- 5 Copy card
- 5 Domain name
- 6 Delete log
- 7 Serial conf
- 8 Language
- All on/Netuser/...
 - Enter profile code
 - 1 Shut down
 - 2 Display set up
 - Light
 - Contrast
 - Turn off light
 - 3 Language
 - 4 Serial mirror

APPENDIX B: KEY FUNCTIONS

The keys on the ZignX have different functions depending on in which menu they are used. The functions are described in the following:

MENU SYSTEM

In the actual menu system, it is possible to use the following keys:

“Yes”: When a function is enabled/disabled in a menu (choice marked by * (Star), the “Yes” button switches between the two options.

Otherwise “Yes” is used to confirm a function and for answering “Yes” to question (e.g. Save changes?)

“No”: Used as backspace or as confirmation in the menu system (when exiting a menu) and as “Turn off PC” when logged into the SuperUser profile.

Arrow keys: Used when looking through the various menus.

Key 1-9: Used to choose functions in some of the menus.

EDITING NAMES (of domains, devices or profiles)

“Yes”: Permits name changing (press “yes” when cursor is next to the menu “Profile name”). Is also used as “delete” (deletes the character to the left of the cursor).

“No”: Used as “OK” (confirmation), when in the menu of domains and profile.

Arrow keys: Used for looking through the menu and changing names.

Shift: Used to switch between capital letters and lower case letters (the arrow in the right corner of the display indicates which of the two letter types is in use).

Key 0-9: Used for writing numbers, signs and letters. Press several times on the same button in order to locate the various letters (as when writing an SMS on a mobile phone).

CHANGING TIME LIMITATION

Arrow keys: Used for changing/choosing one or more of the seven days of the week and “All week” as well as setting the time limitation period (when an interval is being entered).

1 (-+): Used for changing between “All day open”/“All day closed”.

“Yes”: Used for beginning entering an interval (e.g. 07:00-23:00) and for confirming the digits (when the cursor for example has to be moved from 07 to 00 in the above mentioned example).

“No”: Used for cancelling an interval change and for exiting a menu.

APPENDIX C: CONNECTING CHART

- compare the ZignX Control Unit

APPENDIX D: SERIAL MIRROR

Usually, the ZignX display is used as a monitor/screen for viewing the menus and profiles, but it is possible to send a signal from the serial port of the PC to the display. However, this feature demands a special programme (e.g. "HyperTerminal" in Windows). The function is started from the ZignX by choosing the menu "Serial mirror" (by using the "Yes" button) and is confirmed by pressing "No".

The communication parameters are set to 9600 baud, 8bit, no parity, 1 stop bit and no flow control. You can read from the ZignX keypad, but the key "No" confirms the menu "Serial mirror".

APPENDIX E: IDE /SCSI HARDDRIVES

In case IDE and SCSI hard drives are installed in the PC, the first boot hard disk can be set to be either the IDE or the SCSI hard disk in many BIOS set-ups. Please consult the PC instructions handbook.

IDE HARDDRIVES

If two IDE hard drives are on the same IDE channel /IDE cable, they must be set up in a way so that one is "Master" and the other one "Slave", which then provides the possibility to handle two hard drives on only one IDE channel. Regarding how to set the hard drives as Master and Slave respectively, please consult the instructions handbook of the hard disk. Please note that it is often written directly on the hard disk how to set the jumper settings.

Some old PIO Mode 0/1/2/3/4 hard drives must be connected to their own IDE cable as "MASTER" in order to work together with the ZignX. In some cases this requires an extra hard disk controller.

SCSI HARDDRIVES

ID NUMBER

SCSI hard drives shall not be set up as "Master" and "Slave". They each have a unique ID number, which determines which hard disk has the highest priority. The hard disk with the lowest ID number has the highest priority – corresponding to the lowest drive letter.

Consult the User's Guide for your SCSI hard disk on how to set up the ID numbers of the SCSI hard drives. However, please note that it is often written directly on the hard disk how to set the jumper settings.

If the SCSI units are in use (hard drives, CD-ROM drive etc.) please make sure that a separate terminator is placed at the end of the cable and thereby is untouched by the ZignX. It is not possible to control external SCSI units, but they can be used simultaneously with the ZignX.

TERMINATION

Please note that since the ZignX disconnects the power to a hard disk, the termination of the SCSI bus must be carried out with a separate SCSI terminator at the end of the SCSI cable itself.

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