



Operating instructions

funkwerk IP 50
English

Declaration of conformity and CE mark

This device meets the requirements of the following EC directive R&TTE 1999/5/EG:



»Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity«.

You can also request this EC declaration of conformity at the following Internet URL: <http://www.funkwerk-ec.com>.



The waste container symbol with the "X" through it on the device indicates that the device must be disposed of separately from normal domestic waste at an appropriate waste disposal facility at the end of its useful service life.

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Telephone description

IP is the abbreviation for Internet Protocol. An IP phone is a telephone transporting voice by grouping data package of IP protocol.

An IP phone transports voice message over data communication network at extremely low price but of excellent sound quality just like ordinary fixed telephone lines do. With our »funkwerk IP 50« Internet phone, you're going to save dramatically on international calls.

»funkwerk IP 50« Internet phone functions much like an ordinary telephone switching between inner and out line, it brings great convenience to the users. In the internal mode, calls between your »funkwerk IP 50« and any other »funkwerk IP 50« are free of charge. When IP 50 series IP net phone is in generalized out line mode, it can place calls to every ordinary telephones in the world at an extremely low price. With its stability, sound quality, compatibility and rich functionalities, »funkwerk IP 50« leverages your wealth with high quality communications!

Safety notes

- Mind the storage and operation temperatures for the device listed in the technical specifications. Only connect the device when the permissible ambient operating temperature has been reached.
- Please note that condensation on or in the unit must be prevented when moving from cold to warm surroundings. Only remove the unit from the package when the permissible ambient operating temperature has been reached.
- You should not make calls or connect or disconnect any lines during thunderstorms.

PUNKT 5 = Be sure to connect all cords and cables only to their designated ports.

PUNKT 5 = Be sure to route cords and cables so nobody can trip over them.

- Avoid the following:
 - Direct sunlight
 - Sources of heat (for example radiators)
 - Electronic devices (for example stereo components, office equipment or microwave devices)
 - Ingress of moisture or liquids
 - Aggressive fluids or vapors
 - Dusty environment

PUNKT 5 = Do not use the unit in moist areas or where there is a risk of explosion.

PUNKT 5 = Do not expose any internal parts of the unit unless you are instructed to do so by the installation and operating manual.

PUNKT 5 = Do not touch any connector pins with sharp metallic items or damp objects.

PUNKT 5 = If the unit is not fixed to a surface, place it and its accessories on an anti-skid mat or equivalent.

PUNKT 5 = Clean the unit using only a slightly dampened piece of cloth.

- Only use approved accessories.
- Only terminals with SELV and/or which comply with ETS 300047 may be connected to the unit. This regulation is fulfilled when approved terminal devices are used as intended.

Plug-in power supply

- Use only approved power plug-in units.
- Do not use power plug-in units with visible defects or damage (fissures, cracks, etc.)

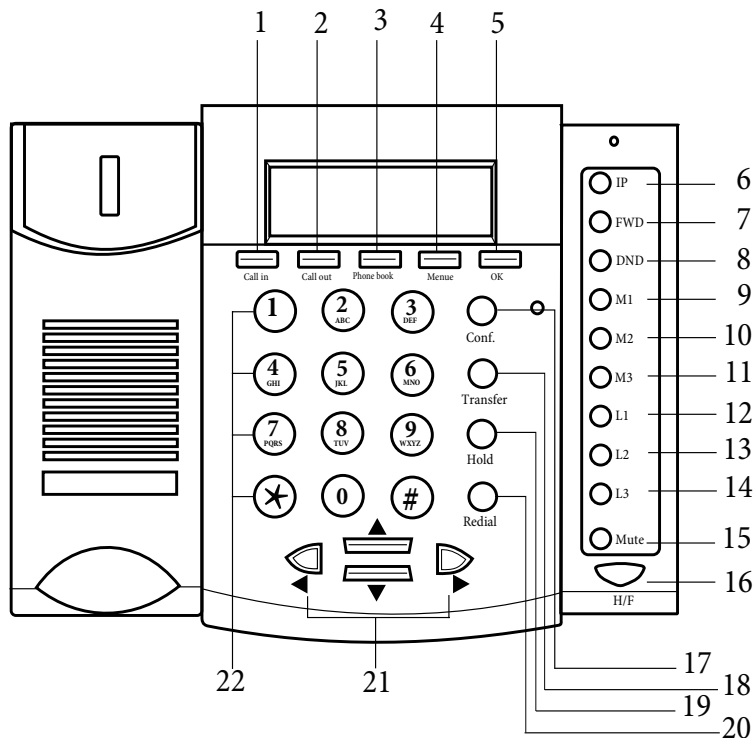
Elektrostatic charges (protection against electrostatic charges)

- The telephone is supplied with enhanced ESD protection against the effects of electrostatic discharge that exceeds the protection level cited in the approval specification. Elevated ESD levels should nevertheless be avoided to the greatest possible extent. In some cases, electrostatic discharge levels can far exceed the approval limits or the resistance levels already implemented in your telephones. Eliminate the causes or conditions that promote these elevated ESD levels, such as insufficient humidity or carpeting. The telephone manufacturer does not assume any liability for damage caused under such circumstances.

Unpacking and placing the telephone

- funkwerk IP50
- Handset with handset connecting cord
- Cat.5 Connection cable, approx. 2 m
- Brief description of functions
- CD-ROM with User Manual

User interface



1	Call in	Completion of call with last caller
2	Call Out	Completion of call with last called party
3	Phone Book	Access to the telephone directory
4	Menu	Access for polling/configuration
5	OK	Confirmation of an entry
6	IP	Retrieving the telephones IP-address
7	FWD	»Call forwarding« on or off
8	DND	»Silent signalling« on or off
9	M1	1st speed dial button
10	M2	2nd speed dial button
11	M3	3rd Speed dial button
12	L1	Communication using provider 1
13	L2	Communication using provider 2
14	L3	Communication using provider 3
15	Mute	Activating or deactivating the microphone (room inquiry)
16	H/F	Hands free calling on or off
17	Conf.	Conference on
18	Transfer	Transferring a call put on hold to another party
19	Hold	Room inquiry / Broker's call button
20	Redial	Redialing
21	Selection buttons	
22	Dial buttons	

Keypad features

The assignments for the keypad for entering letters, digits and special characters are as follows:

But- ton	Number of actuations								
	1	2	3	4	5	6	7	8	9
1	1	-	,	!	?				
2 ABC	2	a	b	c	A	B	C		
3 DEF	3	d	e	f	D	E	F		
4 GHI	4	g	h	i	G	H	I		
5 JKL	5	j	k	l	J	K	L		
6 MNO	6	m	n	o	M	N	O		
7 PQRS	7	p	q	r	s	P	Q	R	S
8 TUV	8	t	u	v	T	U	V		
9 WXYZ	9	w	x	y	z	W	X	Y	Z
0	0	Space							
*	*	.	:	@					
☎		Dial initiation							

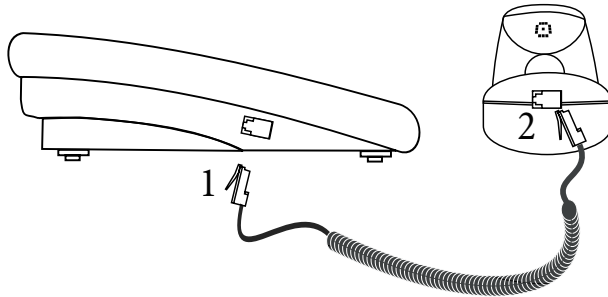
- 1** Several special characters are assigned to the button »1«. For ex.: »-«, »_«, »!«, »?«

When you press the 1 button the first time a »1« is inserted. When you press this key a second time several special characters are shown in the display. Press the appropriate key to select the corresponding special characters 1 ... 9.

Connecting the IP phone

Connecting the handset cord

Connecting the handset to the base: Insert the handset cord into handset jack at the left side of the base.

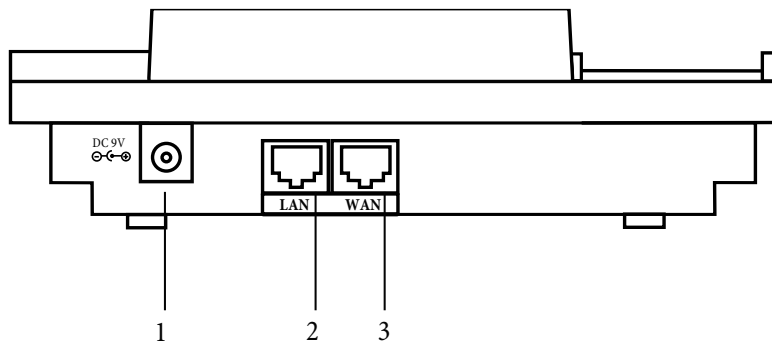


Telephone rear view

the telephone with the Internet connecting: Plug the RJ-45 Ethernet cable into the Ethernet jack named »WAN« of the phone. Plug the other end of the cable into an appropriate LAN or DSL/Cable router port or a HUB.

Connect IP phone to a computer if necessary. Plug the RJ-45 Ethernet cable into the Ethernet jack named »LAN« of the phone. Plug the other end of the cable to a computer.

Activating the telephone: Plug the power adaptor into the power jack of the phone. Then plug the other end of the power adapter into the appropriate 230 VAC wall outlet.



- 1 - To the power adaptor
- 2 - PC-port
- 3 - To the LAN- or DSL/router port or hub

Installing the IP Phone

Before installing your IP phone, it is useful to know what kind of IP addressing your LAN or router is using.

Most networks, including the Internet, use identification codes IP (Internet Protocol) addresses to identify and locate the devices that share their services.

DHCP-addressing

- With this system, your LAN or router automatically assigns all the required IP parameters to any device connected to it when the device logs on. (Some ISPs who use DHCP require a host name, which must be entered manually.)

Your phone is shipped from the factory with DHCP on, or enabled. So, if your LAN or router is configured to use DHCP addressing, your IP Phone's LAN parameters will automatically be configured as soon as it is connected to the LAN or router and powered up.

Press the »IP« button if you wish to view the IP address.

Static addressing

- If your LAN does not use DHCP addressing, each device concurrently connected to it must be assigned its own unique IP address. In this case, your LAN's configuration information must be manually entered into the phone. You will need to know the following parameters:
 - IP address
 - Subnet mask
 - Gateway address
 - Primary DNS address
 - Secondary DNS address (required by some systems)

If your network uses static addressing, ask your network administrator for the parameters needed for configuring your IP Phone.

Configuring the telephone using the keypad

Features

Telephone directory

Search:	EINR50 = Search Phone Book.
Adding an entry:	Add new phone number to phone book
Speed dial:	Add speed dial phone number to speed dial list.
Delete all:	Deleting all numbers stored in the phone book.

Call history

Incoming calls:	Displaying all inbound calls.
Dialed numbers:	Displaying all stored numbers.

Deleting data records / deleting call history.

All:	Deleting all stored numbers.
Incoming:	Deleting all inbound calls.
Selected:	Deleting all previously dialed numbers.

Phone setting

Call forward

Forwarding all calls

Activate:	To Enabled/Disabled this function.
Telephone number:	Forward to a speed dial number.

Busy Forward

Activate:	To Enable/Disable this function.
Telephone number:	Forward to a speed dial number.

Forwarding calls at no answer

Activate:	To Enable/Disable this function.
Telephone number:	Forward to a speed dial number.

Ring Timeout

Time interval before forwarding a call at no answer:	For example, if 20 is set for this, the call will be rerouted to the specified target number after 20 seconds.
---	--

Do Not Disturb

Always:	Block all the incoming calls
per time:	Block all the incoming calls within a period of time.
Time interval:	Enter start and end time for inhibition.

Appointments

Activate:	To Enable/Disable this function.
------------------	----------------------------------

Time: Setting the time for an appointment. It is in 24 hours format.

Date/Time setting

Date & Time: Set the IP Phone Date and Time.

SNTP setting

SNTP: Enable / Disable SNTP.

Primary SNTP-server: Set Primary SNTP server IP address.

Secondary SNTP server: Set Secondary SNTP server IP address.

Time zone: Set Time zone.

Synchronisation time: Set adjustment time period.

Volume & Gain

Handset volume: Set Handset volume from 0...15 (max.).

Speaker volume: Set Speaker phone volume from 0...15 (max.).

Handset volume:

Set Handset gain from 0...15 (max.).

Speaker gain: Set Speaker gain from 0...15 (max.).

Ringer

Dial tone gain: Ringer volume setting from 0...15.

Tone: Selecting the ringer tone 1...4.

Auto Dial: Set Auto Dial time from 3...9 seconds.

Network

WLAN Setup

IP type Client with fixed IP

DHCP-Client

PPPoE-Client

Fixed IP setting IP-address

Subnet mask

Default Gateway

MAC-address

PPPoE setting User name

Password

LAN Setup

Bridge

NAT

DNS

Primary DNS

Secondary DNS

VLAN**Activate****VID:** Select VID Priority (VID 2-4094).**CFI:** Canonical Format Indicator(0...1).**Status:** Show WAN and LAN IP addresses.**SIP Settings****Service domain****First realm**

Activate

User Name

Display name

Register name

Register password

Proxy-Server

Domain Server

Outbound proxy

Second Realm

Activate

User name

Displayed name

Login-Name

Login password

Proxy-Server Proxy

Domain-Server

Outbound proxy

Third realm

Activate

User name

Displayed name

Login-Name

Login password

Proxy-Server Proxy

Domain-Server

Outbound proxy

Codec**Codec Type****G.711 uLaw****G.711 aLaw****G.723**

G.729

G.726-16

G.726-24

G.726-32

G.726-40

VAD: To Enable/Disable the Voice Active Detection function.

RTP setting

Outband DTMF

Duplicate RTP No duplicate.
One duplicate.
Two duplicate.

RPort Setting RPort Enabled/Disabled.

Hold by RFC: Enable/ disable the hold feature (RCF:3261).

Status First Realm: First SIP server register status.
Second Realm: Second SIP server register status.
Dritter Realm: Third realm register status.

NAT Transversal

STUN settings STUN: To Enable/Disable this function.
STUN server

Administrator

Auto Config

Configuration mode Deactivate
TFTP
FTP

TFTP-Server: Setting the TFTP server IP address.

FTP-server: Setting the FTP server IP address.

FTP Login name: Setting the FTP login name.

FTP-password: EINR50 = Setting the FTP password.

Upgrade system

Immediate upgrade: Immediate device upgrade.

Status: The time for next checking of updated firmware.

Timer reset: Reset the update time.

Default setting

System Authentication:

In order to set the SIP using the keypad you need to input the password first. Default is »24234880«.

Version











Watch dog













Restart

Operation

Symbols

Symbol Reference

-  This symbol prompts you to lift up the handset of your telephone.
-  This symbol indicates the call status. You have lifted the handset of your telephone.
-  This symbol prompts you to replace the handset of your phone in the carriage, or the telephone is idle.
-  This symbol indicates some kind of signaling activity at your terminal, for example, that your phone is ringing.
-  This symbol prompts you to dial a number.
-    One of these symbols indicates that you should dial the digit shown, or a certain character.
-  

-  **Hold** This symbol prompts you to press the »Hold« button.
-  **Redial** Use this button to dial the last number once again (redial button).
-  **Conf.** Use this button to initiate a three-party conference call.
-  **Transfer** Use this button to transfer a call to another party.
-  **OK** This symbol prompts you to press the OK button (Enter).
-  **Menu** Use this button to enter the phone's configuration menu.
-  **Phone book** Use this button to access the telephone directory.
-  **Call out** Use this button to access the called party list.
-  **Call in** Use this button to access the caller list for calls.
-  **Call in**
-  This symbol indicates that an acknowledgement signal can be heard in the handset.
-  This symbol indicates that a conference call is active.

Telephone display

Telephone display when not enrolled.



When the telephone is idle (not yet enrolled) the display shows the following:

Date (MM-TT) and time (hh:mm) in the upper line, as for example 01.12 8:26 a.m.

»No service« signifies that none of the performance features such as call transfer or »Do not disturb« has been activated. The green LED will be lit after enrolling the telephone with a SIP-provider or with a pabx.

```
12-01 08:26
No service
```

Display for an enrolled telephone



When the telephone is idle, the display shows the following: Date and time on the first line.

The entered name (»Display Name«) on the second line.

The green LED is lit. The telephone has been enrolled with a SIP-provider or with a pabx.

```
12-01 08:26
< IP-50>
```

Lifting up the handset without dialing



If you lift up the handset but do not start dialing, the dial mode will be switched off after approximately 20 seconds. The text shown here is then displayed for around 10 seconds and you will hear the busy tone. The display then returns to idle state. However, you will not hear any tone from the handset. Replace the handset.

```
Time out...
```

Call



With an incoming call, the number of the caller is displayed on the upper and the lower line.

```
12
12
```

Whether or not the name of the caller is displayed depends on the provider. The number may be displayed on both lines.



The display will be as shown here, if a caller terminates the call without establishing a connection. In this example here two calls were not accepted.

The caller list contains more information on these calls (»2.Call history«).

```
12-01 08:26
2 Missed Call
```

Making a call



After lifting up the handset or activating the hands-free mode you can start dialing. To have the entered number dialed immediately, press the # button. The user is called.

```
IP Dialing 12
12345
```

```
Ringback
1234
```

Call connection



You are connected with the other party. Description of the display:

L1:10 = Connected with call number 10.

Timer = Connected for 1 hour, 2 minutes and 3 seconds.

```
L1:10
Timer=01:02:03
```

Room inquiry



You are connected with the other party.

```
IP Dialing
Timer=01:02:03
```

Simple Log-in of a »funkwerk IP 50« to a PABX.

Enroll your telephone at the pabx and specify a number for the SIP-phone (e.g. 13); save the changes made. If required enter all other information according to the pabx description.

Connect the pabx and the »funkwerk IP 50« through Ethernet. Connect the power supply for the »funkwerk IP 50«.

Begin as follows:



The handset remains on hook.



Press the »Menu« button.



Select the function **4** **1** **1** . Es wird »*DHCP Client« angezeigt.



Confirm »DHCP Client« using the »OK« button.



Press the »Menu« button.



Select the function **7** **4** . Es wird »Password« angezeigt.



Enter the password: **2** **4** **2** **3** **4** **8** **8** **0** (factory default).



Confirm your entry using the »OK« button.



Press the »Menu«.



Select the function **5** **1** **1** **1** . The display shows »*Enabled«.



Confirm »*Enabled« using the »OK« button.



Press the »Menu« button.



Select »1.Activation «.



Confirm using the »OK« button.



Confirm »*Enabled« using the »OK« button.



Press the »Menu« button.



Select »2.User name«. Enter one of the numbers you have specified when configuring the pabx.



Confirm using the »OK« button.



Select »2.Display name«. Enter the name you wish to have displayed.



Confirm using the »OK« button.

After a restart your »funkwerk IP 50« will be ready for operation.

If required, enter all other information as described in the pabx manual.

Telephony

When subscribers are put on hold they hear waiting music, depending on the provider.

Note! When you press any of the numerical buttons, the phone will start dialing, even with the handset on hook or hands-free mode switched off.

The following procedures often begin with »Lift up handset« and end with »Replace handset«. Activating or deactivating the hands-free mode has exactly the same effect.

Starting a call

				
Lift up handset	Dial call number	Terminate dialing by pressing the # key.	Conduct your call	Terminate your call

Dialing from the phone book

You can store up to 140 names and numbers in the telephone directory. To select a name, you can page through the directory using the arrow buttons, or enter the specific first letter(s) of the name using the push-button set.

					
Handset on hook	Phone book	Enter first letter	OK	Select subscriber	Lift up handset




Accepting calls

			
Telephone rings	Lift up handset	Conversation	Terminate your call

Speed dial using the M1..M3 buttons





			
Lift up handset or handset on hook	M1...M3	Conduct your call	Terminate your call

Room inquiry




		
You are conducting a call. You would like to call another party.	Mute button »Mute« The other party can no longer hear you.	Mute button »Mute« The other party can hear you again.

Inquiry Call






You can call another party at any time during an ongoing call.

			
You are conducting a call. You would like to call another party.	Press the System-parked inquiry button »Hold«. You hear the dial tone from the earpiece.	Dial the number of the party you wish to call. Speak to the desired party.	Press the System-parked inquiry button »Hold« once again to return to the first caller.

Accepting a waiting call (room inquiry with waiting caller)

	 Hold	
You are conducting a call. A second party calls you. You hear the call waiting signal.	Press the System-parked inquiry button »Hold«. You hear the dial tone from the earpiece.	You will be connected with the waiting party. Your first call is put on hold (see »Inquiry call«). For further procedures refer also to »Broker's call« or »Three-party conference call«.

Broker's Call

	 Hold	 	
You are in a call but wish to speak to a third party.	Press the System-parked inquiry button »Hold«. You hear the dial tone from the earpiece.	Dial the number of the party you wish to call. Speak to the desired party.	You are conducting the call. The first call is put on hold.









Press the System-parked inquiry button »Hold«, to return to the first caller, the second caller will be put on hold. Press »Hold« to switch back and forth between the two callers.







If you switch back and forth between two external parties (broker's call) and then hang up your handset, the current call is terminated and the caller on hold will call you by way of the »Recall«.

Call switching

	 Hold	 	 or 
You are conducting a call and wish to transfer the call to another party.	Press »Transfer«. You hear the dial tone from the earpiece.	Dial the number of the party you wish to call.	You can now speak with that person. Replace the handset. The two parties are then connected.

If the called party does not answer, press »Transfer« once again to return to the first party.

Three-Party Conferencing

	 Hold		
You are conducting a call with one party and wish to include a further party in the call.	Press the System-parked inquiry button »Hold«. You hear the dial tone from the earpiece.	Dial the number of the party you wish to call.	You would like to include this party in the first call.



Press the System-parked inquiry button »Hold«. Conduct your three-party conference call.



The conference is ended when you hang up your handset. A party included in the conference call can hang up at any time and the party which initiated the call can then continue the conference with the remaining callers.

If you are in a conference call and you hang up, your call is terminated and the two parties from your conference remain connected with each other!

Settings

Temporary handset volume setting (Volume)

The telephone is idle, or you wish to change the handset or speaker volume during an ongoing call.



Use the arrow keys to adjust the handset or speaker volume. The display shows volume control values from »Volume= 0« to »Volume= 15«.

```
12-01 08:26
Volume= 10
```

Viewing the IP address



Press the »IP« function button. The display then shows the IP address currently assigned to your phone.

```
12-01 08:26
192.168.001.053
```

Do not disturb Settings (DND)



Press »DND« (Do not Disturb). The feature is active when »DND« shows on the display.

```
12-01 08:26
# DND #
```

Activate call forwarding (FWD)

Use this key to activate call forwarding. Call forwarding must have been configured previously in the phone for this.



Press the function key »FWD«. Call forwarding is active when »Empty FWD Number« shows on the display.

```
12-01 08:26
AF 10
```

When you replace the handset, the following appears in the display, for example »AF 10«. This indicates that you have configured call forwarding to subscriber 10. When you replace the handset after completing a call, the text in the display »#Forward#« notifies you of an existing call forwarding setting.

```
12-01 08:26
Empty FWD Number
```

```
#Forward#
```

Speed dial

You can save a speed dialing number at keys M1 to M3; the number is then dialed when you press one of these keys. These three keys assign the locations »Phone 1« - »Phone 3« for the »Speed Dial Phone List« in the Web configuration for the phone. You can configure these three locations either with Web configuration, or using the phone. You can overwrite this number using your phone.

Configuring speed dialing destinations for a function key



The handset remains on hook. Dial the number you wish to call.

```
IP Dialing..
1234567
```



Press »M1«, »M2« or »M3«. In this example »M1«.

```
1234567
Save to M1 <ENT>
```



Press »OK« to save the entry.






```
Speed Dial M1 :
1234567
```

Configuration using the telephone

Configuration at the phone is performed using corresponding menus that can be selected with the arrow keys after pressing »Menu«.









Each entry is numbered. After pressing »Menu« you can also reach the required menu by pressing the corresponding number for a specific menu. Example: Pressing »Menu«, key »3«, key »1« will move you to the menu for call forwarding (»1.All Forward«.

During configuration the handset remains in the cradle and hands-free calling (key »H/F«) is de-activated.

 Press the »Menu« button. The first display shows the settings Phone book) for the phone book and Call history) for the call history	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 1. Phone book 2. Call history </div>
 Press the arrow button to have the following menu items displayed. The corresponding number will flash when the cursor is located above the selected menu.	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 3. Phone setting 4. Network </div> <div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 5. SIP setting 6. NAT transversa </div> <div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 7. Administrator 1. Phone book </div>
   You can also use the numbers to select a specific menu. Press the key »Menu« and then enter a number from 1 to 7. The menu is then selected and you can see the first submenu directly, such as for entering »1«: 1.Search und 2. Add entry.	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 1. Search 2. Add entry </div>

Telephone directory setup

Begin as follows:

	 »Menu« button	 1. Phone book	
 Select »2.Add entry«.	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 1. Serch 2. Add entry </div>		
 Confirm your entry using the »OK« button. Enter the desired name. For ex.: »Carlos«.	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> Name : Carlos </div>		
 Confirm your entry using the »OK« button. Enter the telephone number.	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> Number : 123456 </div>		
 Confirm your entry using the »OK« button>«. Imput further entries as needed.	<div style="background-color: #e0e0e0; padding: 5px; margin-bottom: 10px;"> 2. Add entry 3. Speed dial </div>		

Searching phone book entries (Search)

Begin as follows:

	 »Menu« button	 1. Phone book	
---	--	---	---



Select »1.Search«.

- 1. Search
- 2. Add entry



Confirm your entry using the »OK« button.

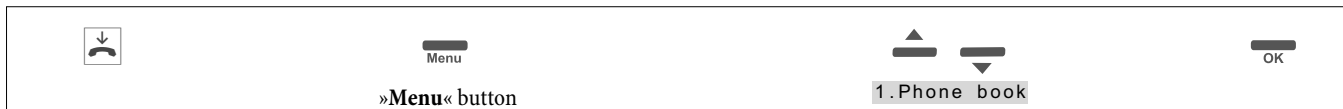


The display shows the number of telephone directory entries (in this example: 4 entries).
Enter the first letter of the name of the party you wish to talk to.
Confirm your entry using the »OK« button.

Search [4]

Activate speed dial

Begin as follows:



Select »3.Speed dial«.

- 3. Speed dial
- 4. Erase all



Confirm your entry using the »OK« button.



Enter the telephone number you wish to assign to any one of the buttons M1 ... M3 and confirm your entry using the »OK« button.

Number :
1234



Press »M1«, »M2« or »M3« or use the keypad buttons 1 through 0. The desired number is now stored under this button.

Press M1..Mx to store number

- 3. Speed dial
- 4. Erase all

Press »M1«, »M2« or »M3« or use the keypad buttons 1 through 0.

Delete phone book (speed dial)

Begin as follows:



Select »4.Erase all«.

- 3. Speed dial
- 4. Erase all



Confirm your entry using the »OK« button.



Select »1.Yes« in order to delete.

- 1. Yes
- 2* No

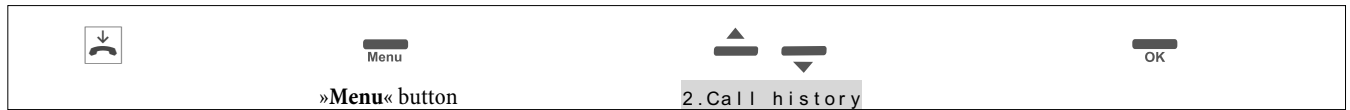


Confirm your entry using the »OK« button.

- 3. Speed dial
- 4. Erase all

Call history

Begin as follows:



Displaying the call history



For the caller list select »1.Incoming calls«.
For the dialed numbers list select »2.Dialed numbers«.
Confirm your entry using the »OK« button.

1.Incoming calls
2.Dialed numbers

OK



Select »1.Incoming calls«.

< 1>12-01 03:23M
10

OK

Confirm your entry using the »OK« button>«. In the first example you will see:
< 1> =first caller.
12-01= Date 1. December.
03:23= 3.23 a.m.
M = Call without conversation.
V = Call connection.
10 = Call from subscriber with call number 10.

< 1>12-01 03:23V
10



Use the arrow keys to select an entry. In the example shown here, either add or delete the 12th

= subscriber in the call list to/from the phone book

You have selected a subscriber from the caller or call history list and now wish to add that subscriber to your phone book.



Use the arrow keys to select an entry. In this example call number 12 with subscriber 15. Confirm your entry using the »OK« button.

<12>12 01 04:23M
15

OK



Select »2.Erase« to delete the entry.
Or select »1*Save« to the entry from the list.
Confirm your entry using the »OK« button.

1*Save
2.Erase



OK



Here you can enter the party's name.

Name :
10 Carlo

OK

Confirm your entry using the »OK« button.



Enter here the number of the caller.

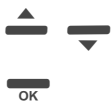
Phone :
10

OK

Confirm your entry using the »OK« button.

Deleting the call history

You can also delete the entire contents of the lists simultaneously.



For the caller list select »3.Erase record«. Confirm your entry using the »OK« button.

- 2. Dialed numbers
- 3. Erase record



Select »1*All« if you wish to remove all entries from the list. Or select »2.Incomming« to remove the callers from the list. Or select »3.Dialed« to remove all outgoing calls from the list. Confirm your entry using the »OK« button.

- 2. Incomming
- 3. Dialed



Phone settings

Call forwarding (Call Forward)

The following call forwarding options are available:

Select the call forwarding type:

1. Call forwarding continuous (All forwards)
2. Call forwarding on busy (Busy forward)
3. Call forwarding on no answer (No answer fwd.).

- 1. All forwards
- 2. Busy forward



Confirm your entry using the »OK« button.

- 2. Busy forward
- 3. No answer fwd.



Select either »1.Activation« to activate call forwarding, or »2.Number« to input the destination number for call forwarding.

- 1. Activation
- 2. Number



Confirm your entry using the »OK« button.



»1.Enabled«. This activates call forwarding. In the example shown here, »*« indicates that this function has been configured.

- 1* Enabled
- 2. Disabled

Confirm your entry using the »OK« button.

»2.Disabled«. This de-activates call forwarding, but the destination number remains configured.

- 1. Enabled
- 2* Disabled



Confirm your entry using the »OK« button.



If you have selected »3.No answer fwd.«, under »4.Ring Timeout« you can set the number of calls (2...8) after which call forwarding is to be carried out.

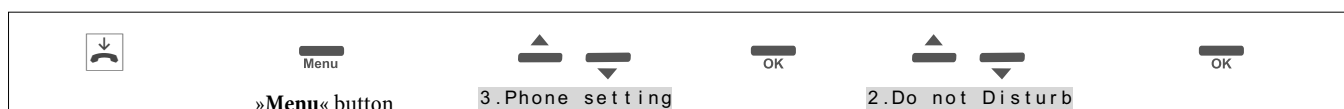
- 3. No answer fwd.
- 4. Ring Timeout



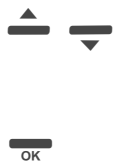
Confirm your entry using the »OK« button.

Silent signalling (Do not Disturb)

Begin as follows:

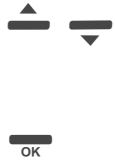


To enter the time, move the arrow (cursor) to the proper position and input the correct digits.



Select either »1.Allways« for permanent Idle, or »2.By Period« to define a time period in which no acoustic signals will be issued at your phone.
Confirm your entry using the »OK« button.

- 1. All ways
- 2. By Period



If you have selected »3.By Period«, under »4.Period Time« you can set the time at which no acoustic signal is to be issued by your phone.
Confirm your entry using the »OK« button.

- 2. By Period
- 3. Period Time



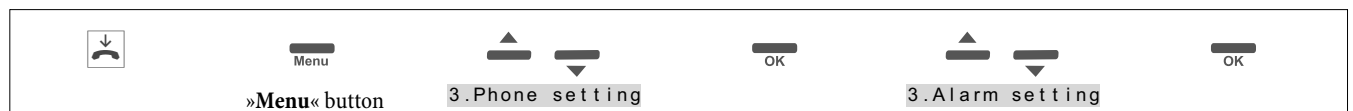
Here, enter the time period in which station guarding is to be activated at your phone (in the example shown here from 12:30 to 13:00).
Confirm your entry using the »OK« button.

- 1. Period Time :
- 12:30 13:00

Appointment reminder calls (Alarm setting)

Your phone can also activate an appointment reminder call at a time which you can define.

Begin as follows:



To enter the time, move the arrow (cursor) to the proper position and input the correct digits.



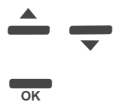
Select »1.Activation«.
Confirm your entry using the »OK« button>«.

- 1. Act ivation
- 2. Alarm time



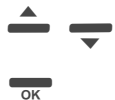
»1.Enabled«. This activates the appointment reminder call.

- 1.*Enabled
- 2.Disabled



»2.Disabled«. This de-activates the appointment reminder call.
Confirm your entry using the »OK« button.

- 1. Enabled
- 2.*Disabled



Select »2.Alarm time«.
Confirm your entry using the »OK« button>«.

- 1. Act ivation
- 2. Alarm time



Here, enter the time at which the reminder call is to be placed (in the example shown here, 12:30).
Confirm your entry using the »OK« button.

- 1. Alarm Time :
- 12:30

Setting the date / time








It is useful to configure a timer server in your phone so that your Telephone remains synchronized within the network. This server can be installed at an external location in the Internet as a so-called Public Time Server or in your own network. SNTP server access must be de-activated for this. This setting must be made when you do not receive the time automatically via an SNTP server.

Begin as follows:



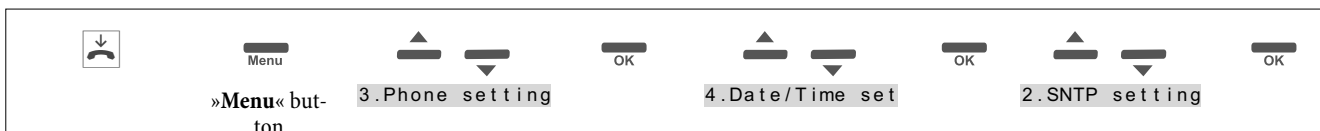
To enter the time, move the arrow (cursor) to the proper position and input the correct digits.







If your SNTP server is still configured you will be requested to de-activate it.

	When you see this message strike the key »Menu« and select »2.SNTP setting« .	SNTP must be disabled first !
	Select »1.SNTP« . Confirm your entry using the »OK« button>.	1. SNTP 2. Primary SNTP
	»2.Disabled« . This de-activates SNTP server access. Confirm your entry using the »OK« button.	1* Enabled 2. Disabled
	Select »1.Date & Time« .	1. Date & Time 2. SNTP setting
	Confirm your entry using the »OK« button>.	
	Here, enter the date and time in the format YY.MM.DD. hh:mm (in the example shown here 24.12.2006, 19.00). Confirm your entry using the »OK« button.	Date & Time : 2006-12-24 19:00
		

Activating / De-activating the SNTP server (SNTP settings)

Begin as follows:



	Select »1.SNTP« . Confirm your entry using the »OK« button>.	1. SNTP 2. Primary SNTP
	»1.Enabled« . This activates SNTP server access. Confirm your entry using the »OK« button.	1* Enabled 2. Disabled
		
	Press »Menu« once again.	
Under the »Primary SNTP« and »Secondary SNTP« setup items, enter the IP addresses of the »time synchronization sources« . Here, you can enter two different addresses. This allows the time to be accepted via a second server in the event of loss of the first server. Any time server that has already been entered is displayed.		
	Select »2.Primary SNTP« . Or, select a further SNTP server »3.Secondary SNTP« . Confirm your entry using the »OK« button>.	1. SNTP 2. Primary SNTP
		



Enter the IP address for the SNTP-server.

SNTP Server IP:
time.windows.com

Confirm your entry using the »OK« button.



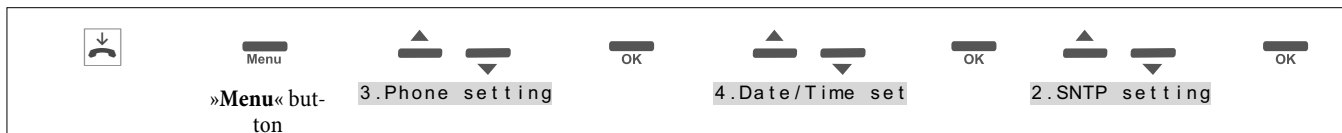
If required, you can then select a second time server; enter the address as described above.

2.Primary SNTP
3.Secondary SNTP

Time Zone

Here, enter the time difference between the standard time »Greenwich (Mean) Time« and your own location. For Central Europe the time zone needs to be set to + one hour (1). Also observe the difference between standard and daylight savings time.

Begin as follows:



Select »4.Time zone«.

3.Secondary SNTP
4.Time zone



Confirm your entry using the »OK« button.



Enter the time difference.

(-11 to +11)



Confirm your entry using the »OK« button.

1

Adjustment Time

This option lets you specify the »Time zone« for resynchronizing the time setting.

Begin as follows:



Select »5.Adjustment Tim«.

4.Time zone
5.Adjustment Tim



Confirm your entry using the »OK« button.



Enter the time.

(1..24)



Confirm your entry using the »OK« button.

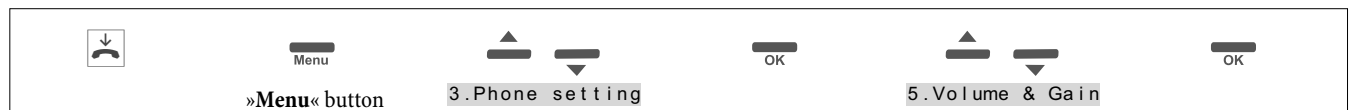
24

Volume & Gain

This option lets you set the volumes for voice communication. What you set here are the signal levels delivered to and received from the phone.

Handset Volume Setting

Begin as follows:



Select »1.Handset volume«.

1. Handset volume
2. Speaker volume



Confirm your entry using the »OK« button.



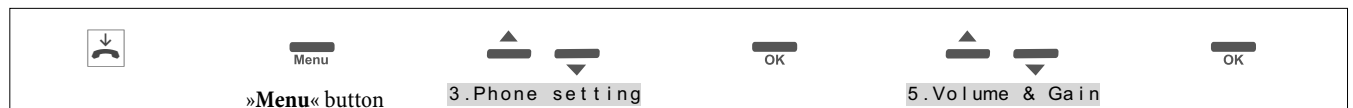
You can set the volume in 15 steps. Select the desired value. Confirm your entry using the »OK« button>«.

Handset volume :
1 (15=Max)



Speaker volume

Begin as follows:



Select »2.Speaker volume«.

1. Handset volume
2. Speaker volume



Confirm your entry using the »OK« button.



You can set the volume in 15 steps. Select the desired value.

Speaker volume :
8 (15=Max)

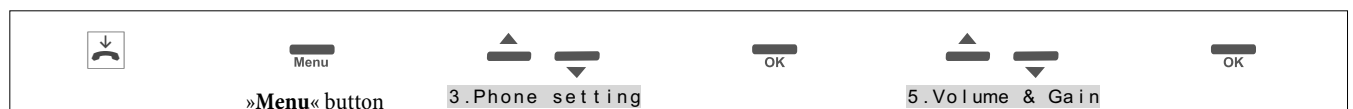


Confirm your entry using the »OK« button>«.

Microphone gain (handset gain)

Use this setting to define the level of amplification to be applied to the voice signal from your microphone before the signal is transmitted to the other party.

Begin as follows:



Select »3.Handset gain«.

2. Speaker volume
3. Handset gain



Confirm your entry using the »OK« button.



15 levels (steps) are provided for the amplification setting. Select the desired value.

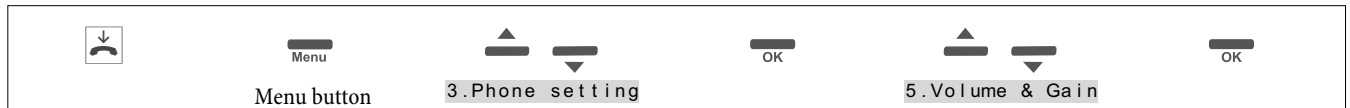
Handset gain :
8 (15=Max)



Confirm your entry using the »OK« button>«.

Speaker gain

Use this setting to define the level of amplification to be applied to the incoming voice signal.

Begin as follows:

Select »4.Speaker gain«.

3. Handset gain
4. speaker gain



Confirm your entry using the »OK« button.



15 levels (steps) are provided for the amplification setting. Select the desired value.

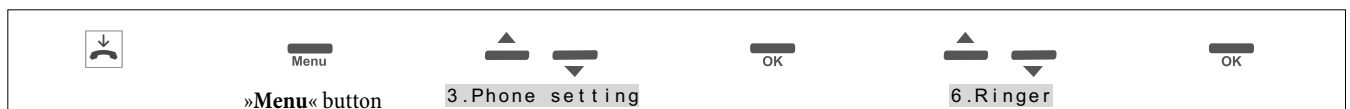
Speaker gain:
8 (15=Max)



Confirm your entry using the »OK« button»«.

Ringer setting

Use this setting to define the ringing melody you wish to use and its volume.

Begin as follows:**Ringer volume**

Select »1.Ringer volume«.

1. Ringer volume
2. Ringer type



Confirm your entry using the »OK« button.



You can set the volume in 10 steps. Select the desired value.

Ringer volume:
6 (10=Max)



Confirm your entry using the »OK« button.

Tone setting

Select »1.Ringer type«.

1. Ringer volume
2. Ringer type



Confirm your entry using the »OK« button.



You can set 4 different ringing melodies. Select the desired melody.

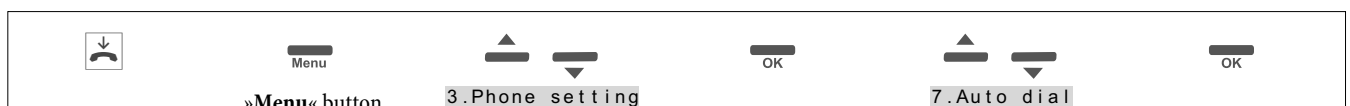
Ringer type:
3 (4=Max)

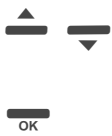


Confirm your entry using the »OK« button.

Auto Dial Time

If you enter digits for composing a subscriber number, the phone must have some means of recognizing when dialing ends. During manual dialing, you mark out the end of a dialed number by pressing the number (#) key. If the number key (#) is not pressed after dialing a phone number, dialing will assume to be completed only when the defined time period starting after which the last number was entered expires (»Auto dial«) You can adjust the length of that period of time between 3 and 9.

Begin as follows:



The time between dialing can be set in steps of 3...9 seconds.
Select the desired value.
Confirm your entry using the »OK« button.

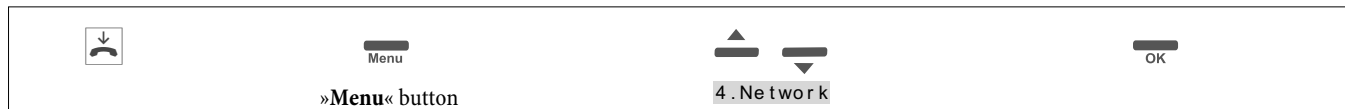
Auto dial :
3 (3-9 seconds)

Network

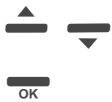
Remember that some settings may not be effective until the phone is restarted.

Your phone is equipped with two Ethernet ports: LAN and WAN. The WAN port is linked to the router or modem. The LAN port represents a dedicated network and must be configured as such.
Here, you can configure the network ports for WAN and LAN.

Begin as follows:



WAN Settings

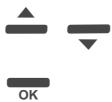


Select »1.WAN Setup«.

1. WAN Setup
2. LAN Setup



Confirm your entry using the »OK« button.

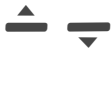


Select »1.IP Type«.

1. IP Type
2. Fixed IP setti



Confirm your entry using the »OK« button.



If the IP address is obtained automatically by a router or a PABX system activate »2.DHCP-Client«.

1. Fixed IP clien
2.*DHCP client

If fixed IP addresses are to be assigned in the network activate »1.Fixed IP clien«

3. PPPoE client



Confirm your entry using the »OK« button».

If your phone is connected directly to a DSL or cable modem activate »3. PPPoE client«

Configuring a fixed IP-address

Begin as follows:



Select »1.IP Adress«.

1. IP Adress
2. Subnet mask



Confirm your entry using the »OK« button.



Enter an IP-address from your network (in this example 192.168.1.45

IP address :
192 . 168 . 001 . 045

Confirm your entry using the »OK« button.



Select »2.Subnet mask«.

- 1. IP Adress
- 2. Subnet mask



Confirm your entry using the »OK« button.



Enter the subnet address of your network (in this example 255.255.255.0)

Subnet mask :
255 . 255 . 255 . 000



Confirm your entry using the »OK« button.



Select »3.Default Gateway«.

- 2. Subnet mask
- 3. Default Gateway



Confirm your entry using the »OK« button.



Enter the gateway address of your network (in this example: 255.255.255.0)

Gateway IP :
192 . 168 . 001 . 250



Confirm your entry using the »OK« button.

DSL- or cable modem access (PPPoE)

Begin as follows:



Select 3.PPPoE«.

- 2. Fixed IP setting
- 3. PPPoE setting



Confirm your entry using the »OK« button.



Under »1.User Name « and »2.Password« enter the user name and password assigned to you by your provider.
Confirm your entry using the »OK« button.

- 1. User Name
- 2. Password



If the user name or password contains special characters that are not supported by the phone, these entries must be made using the »Web Configurator«.

LAN Settings

- If the LAN setting is at «Bridge«, the two Ethernet ports are linked transparently with one another. You need this option if the phone is interconnected with an external NAT router.
- If the LAN setting is at »NAT«, the integrated NAT is activated. This setting is useful for ADSL users who don't have access to a NAT router.

Begin as follows:



Select 1.Bridge « or »2.NAT«.

- 1. Bridge
- 2 * NAT



Confirm your entry using the »OK« button.

(DNS Settings)

The DNS, or Domain Name System entry is a service on the Internet that can provide a fixed host name for a dynamic IP address. This service allows a PC to be addressed using an invariable domain name.

Begin as follows:



Select »1.Primary DNS« for the preferred DNS. Confirm your entry using the »OK« button.

1. Primary DNS
2. Secondary DNS

Enter the IP-address. Confirm your entry using the »OK« button.

Primary DNS :
168 . 095 . 192 . 001

The »Secondary DNS« is configured in the same manner as the »Primary DNS«.

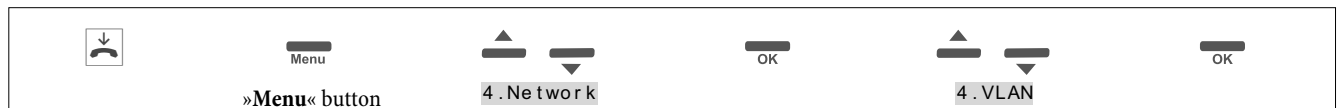
VLAN Settings

A **Virtual Local Area Network** (VLAN) is a local virtual network that resides in a physical network. Its most widely used implementation is specified in the IEEE 8021Q standard.

VLAN activation

When you activate the VLAN option, all incoming packets are checked on the basis of their IP address and VID, provided you have defined the settings for VID, User Priority and CFI.

Begin as follows:



Select »1.Activation« in order to activate. Confirm your entry using the »OK« button.

1. Activation
2. VID

VID setup

Set the VID as specified in the information from your service provider.

Select »2.VID« in order to set up VID. Confirm your entry using the »OK« button.

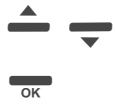
1. Activation
2. VID

Here, enter the value specified by your provider. Confirm your entry using the »OK« button.

VID (2-4094) :
136

Priority

defines a user priority using eight different priority levels (2^3). IEEE 802.1P specifies the use of the three user priority bits. Normally, this value is defined by your Service Provider.



Select »2.VID« in order to set up priority.
Confirm your entry using the »OK« button.

2 . VID
3 . Priority



Here, enter the value specified by your provider.
Confirm your entry using the »OK« button.

Priority (0-7):
0

CFI

The Canonical Format Indicator is always set to zero by Ethernet Switches. CFI is used to ensure the compatibility of Ethernet and Token Ring networks. When an Ethernet interface receives a frame with a CFI value of “One”, that frame should not be forwarded to an unmarked interface without any processing.

If you activate the VLAN option and enter values for VID, User Priority and CFI, all incoming packets that bear the IP address of the phone and the same VID will be accepted. Packets that have the IP address of the phone but a different VID are rejected by the phone.

defines a user priority using eight different priority levels (2^3). IEEE 802.1P specifies the use of the three user priority bits. Normally, this value is defined by your Service Provider.

Status

Here, you can view the IP address and MAC address of your phone.

Begin as follows:



The IP address and MAC address are shown here. A »W« is placed in front of the WLAN address, an »L« in front of the LAN address.

L 192 . 123 . 123 . 001
W192 . 168 . 001 . 052
MAC : 00094551ee08

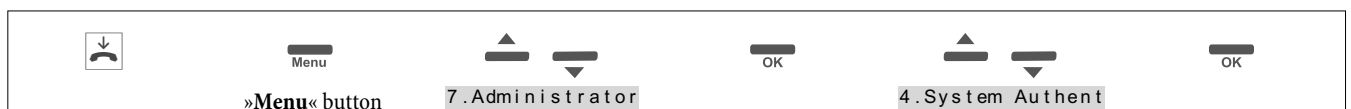
SIP Settings

This menu item lets you set the Service Domain, make Codec settings, Codec ID settings and miscellaneous other settings. Follow your provider’s instructions for these settings, as they are specific for each different provider. Configuration can only be completed via the »Web Configurator«.

Administrator (Authentication)

You must log in with your password (factory default setting »24234880«) before you can make any SIP settings. Only after you have successfully logged in can you make the following settings.

Begin as follows:



Enter the password »Password«.

Password :
24234880



Confirm your entry using the »OK« button>«. »Correct!« will appear in the display when your password is accepted.

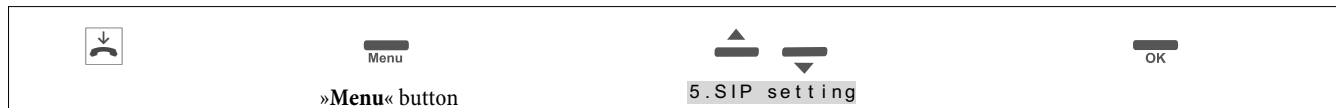
Correct !

You can now make any entries that require previous authentication.

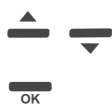
Entering provider data.

Your phone can utilize services from three different providers. Three function keys (L1...L3) are provided for this on the telephone. You can permanently select a provider using these function keys. Enter the data for each provider under »First realm«, »Second realm« and »Third realm«.

Begin as follows:



The »First realm« is set when the phone is restarted.



Select »1.Service domain« in order to activate.
Confirm your entry using the »OK« button.

1. Service domain
2. Codec



Select the realm in which you wish to enter the provider.
Confirm your entry using the »OK« button.

1. First realm
2. Second realm
3. Third realm



Select »1.Activation« in order to activate.
Confirm your entry using the »OK« button.

1. Activation
2. User name



»1.Enabled«. This activates the provider.
»2.Disabled«. This de-activates the provider.
Confirm your entry using the »OK« button.

1.*Enabled
2.Disabled



Select one of the entries 2...8 « and enter the data of your provider.
Confirm your entry using the »OK« button.

1. Activation
2. User name

PABX connection: Under »2.User name« enter one of the numbers you have specified when configuring the pabx.

Enter the name that you wish to have displayed.
Enter the register name specified by your provider.
Enter the register password specified by your provider.
Enter the Proxy Server specified by your provider.
Enter the Domain Server specified by your provider.
Enter the Outbound Proxy address used by your provider. If unknown, you may skip his option. The same steps are required when registering with a different provider.
Confirm your entry using the »OK« button.

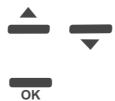
3. Display name
4. Register name
5. Register passw
6. Proxy Server
7. Domain Server
8. Outband proxy

Port settings (RTP setting)

RTP = Real-Time Transport – a network protocol for transmitting continuous data (streams).

Under »Port Setting« you can specify the SIP and the RTP port numbers. Providers can use different SIP/RTP port settings; ask your provider about this so that you can enter the correct port number.

Begin as follows:



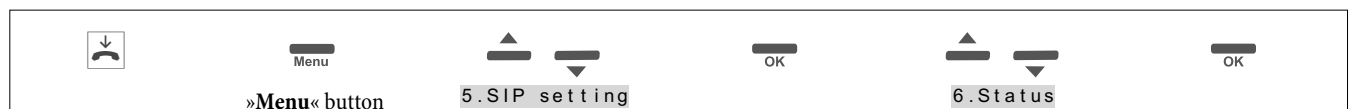
Select the entry that you wish to activate or de-activate. Confirm your entry using the »OK« button.

1.Outband DTMF
2.Duplicate RTP

Displaying the status

You can use this item to view registration at the given provider.

Begin as follows:



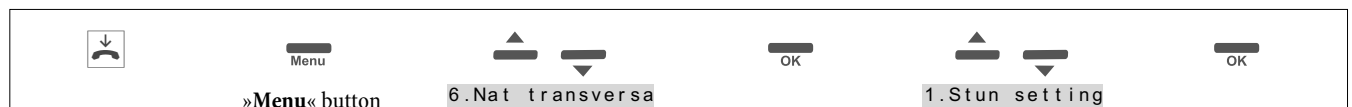
Select the entry that you wish to view. In the example given here the phone has not been registered with the provider, or the phone is not logged on to a PABX system.

First realm
Unregister

STUN Setting

Under »STUN Setting« you can set up the STUN server for the SIP service. The STUN function must be activated in order for a telephone registered with the SIP server to work correctly downstream from a SIP server.

Begin as follows:



Select »1.STUN« to activate or deactivate. Confirm your entry using the »OK« button.

1. STUN
2. STUN server



Select »2.STUN.server« to register with the server (in this example »stun.xten.com«).

1. STUN
2. STUN server



Confirm your entry using the »OK« button.

Registered
stun.xten.com

Administrator settings

You can have your phone configured using a preset or stored configuration file. You will need to specify the location for the configuration data.

Selecting the configuration data server

Begin as follows:



Select »1.Auto config« to specify the server on which the configuration data are stored.

1 . Auto config
2 . Upgrade System

Confirm your entry using the »OK« button.

Select »1.Config mode« to activate the server. The following servers are available:

1 . *Disabled
2 . TFTP

- »1.Disable« (deactivating server access)
- »2.TFTP«
- »3.FTP«
- »4.HTTP«

Confirm your entry using the »OK« button.

Select the activated server type and enter the IP address, user name (»Login Name«) and the password (»Password«) for the FTP server.

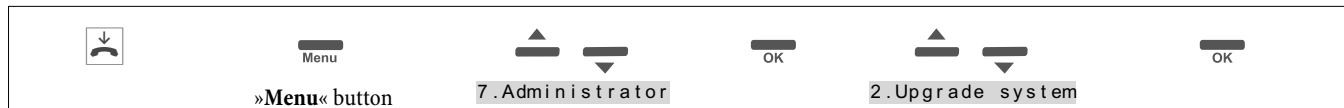
2 . TFTP
3 . FTP

Confirm your entry using the »OK« button.

4 . HTTP

(Upgrading the telephone software

Begin as follows:



The corresponding entries must be made for the following settings using the Web Configurator. These procedures are then carried out in the functions that are described.

Select »3.Status« to view the current software and the preset time for the next automatic upgrade.

3 . Status
4 . Reset Time

Confirm your entry using the »OK« button.

Press the »Menu« button.

Click »2.Upgrade via« to select the server on which the file to upgrade is located.

2 . Upgrade via
3 . Status

- »1.Disable« (deactivating server access)
- »2.TFTP«
- »3.FTP«
- »4.HTTP«

Confirm your entry using the »OK« button»

Press the »Menu« button.

Select »1.Upgrade Now« to view the current software.

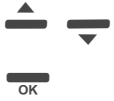
1 . Upgrade Now
2 . Upgrade via

Confirm your entry using the »OK« button.

Select whether you wish to continue »Yes« or whether you wish to quit the upgrade »No«.

1 . Yes
2 *No

Confirm your entry using the »OK« button.



Select »4.Reset Time« to have the upgrade done at the time specified in the Web configurator.

Confirm your entry using the »OK« button.

4.Reset Time
1.Upgrade Now



Select whether you wish to continue »Yes« or whether you wish to quit the upgrade »No«.

Confirm your entry using the »OK« button.

1.Yes
2*No

Configuring the phone using the Web browser

Your phone is also equipped with an integrated Web interface that you can use to configure the phone. First, enter the IP address at the Web site. Example: <http://192.168.1.100>. This IP address is obtained automatically from the connected PC via DHCP. You can view the IP address when you press the »IP« key on your phone.

Login

Enter the User Name and Password in the empty text boxes provided for that purpose.

Default settings:

- The user name for the admin is »admin« and the password is: »24234880«. As an Administrator, you are authorized to make any configuration settings you require.
- The user name for generic users is: »user« and the password is: »user«. As a standard User you are not authorized to perform SIP configuration, for example.
- When you click the »Login« button the Web-based information management menu is loaded to your phone.
- You must confirm any changes you make to this menu by clicking the button »Submit«. When you are finished making changes to the menu click the button »Save« in the menu »Save Change« to save all your changes. The modified settings will only be activated after you restart your system. To do this, click the button »Reboot« located at the left. The system is then restarted with the new configuration parameters.

Telephone system data

When you have successfully logged on to the Web site, the current system data for your phone is displayed, such as firmware version, model name, etc.

A list of the functions is shown on the left side. Select the function you wish to set by clicking it with the mouse key.

System Information	
This page illustrate the system related information.	
Model Name:	IP50
Firmware Version:	Wed May 16 17:27:22 2007
Codec Version:	Wed Dec 20 17:28:34 2006

Phone Book, Speed Dial (Speed Dial Settings)

Phone Book/

Use the menu item »Phone Book« to configure the phone book. You can add, change or delete speed dial numbers in the speed dial list (»Speed Dial Phone List«).

Phone book entries

You can add new phone book entries using »Add New Phone«.

- Under »Position« you may choose one out of 140 speed dial destinations (000...139). Use »Name« to enter a name for the entry.
- For »URL« enter either the phone number, the URL, or the IP address of the subscriber.
- When you are done, click the »Add Phone« button.
- By clicking the »Reset« button you can delete the entries made under »Add New Phone«.
- Once an entry has been added to the »Speed Dial Phone List« you cannot edit it anymore, only delete or overwrite.

Entry Delete

- Go to the »Select« column, choose the entries you want to remove, and click the »Delete Selected« button.
- If you wish to remove all subscriber numbers in one go, you need not choose all entries in the »Select« column. Simply click the »Delete All« button instead.

Phone Book

You could add/delete items in current phone book.

Phone Book Page: page 10 ▼

Phone	Name	URL	Select
90			<input type="checkbox"/>
91			<input type="checkbox"/>
92			<input type="checkbox"/>
93			<input type="checkbox"/>
94			<input type="checkbox"/>
95			<input type="checkbox"/>
96			<input type="checkbox"/>
97			<input type="checkbox"/>
98			<input type="checkbox"/>
99			<input type="checkbox"/>

Add New Phone

Position: (0~139)

Name:

URL:

Speed dial(Speed Dial Phone List)

Use the menu option »Speed Dial Phone List« in order to configure the speed dial feature. You can add, change or delete speed dial numbers in the speed dial list (»Speed Dial Phone List«).

Entering a Speed Dial Destination

Under »Add New Phone« you can enter a new speed dial destination.

- Under »Position« you may choose one out of 10 speed dial destinations (0..9). The digits 0 through 9 each represent a subscriber number. The phone dials these destination numbers automatically whenever you enter the appropriate digit for the desired subscriber.
- Under »Name« you can enter a name for each speed dial destination.
- Under »URL« you enter either the phone number, the URL, or the IP address of the subscriber you wish to store under this speed dial destination.
- When you are done, click the »Add Phone« button.
- By clicking the »Reset« button you can delete the entries made under »Add New Phone«.

Once an entry has been added to the »Speed Dial Phone List« you cannot edit it anymore.

Entry Delete

- Go to the »Select« column, choose the entries you want to remove, and click the »Delete Selected« button.
- If you wish to remove all subscriber numbers in one go, you need not choose all entries in the »Select« column. Simply click the »Delete All« button instead.

Speed Dial Phone List

You could set the speed dial phones in this page.

Phone	Name	URL	Select
0	0	192.168.96.151:5062	<input type="checkbox"/>
1	1	192.168.96.153	<input type="checkbox"/>
2			<input type="checkbox"/>
3			<input type="checkbox"/>
4			<input type="checkbox"/>
5			<input type="checkbox"/>
6			<input type="checkbox"/>
7			<input type="checkbox"/>
8			<input type="checkbox"/>
9			<input type="checkbox"/>

Add New Phone

Position: (0~9)

Name:

URL:

Telephone Settings (Phone Setting)

Here you can define the settings for the telephony functions.

Call Forward

This feature lets you redirect your phone calls and incoming telefax messages to a location of your choice.

Please note that not all providers support call forwarding. Before setting up this feature, you should therefore ask your provider for advice.

On the page »Forward Setting« you can select the forwarding mode, then enter the destination URL (phone number, phone number in URL format or IP address) to which incoming calls should be forwarded, as well as a name. The following call forwarding options are available:

- Unconditional Call Forwarding (All Forward):** All incoming calls will be forwarded to the specified phone number, URL or IP address.
- Call Forward on Busy (Busy Forward):** An incoming call will be forwarded to the specified phone number, URL or IP address only if the called subscriber is busy.
- Call forwarding on (No Answer Forward):** An incoming call will be forwarded to the specified phone number, phone number in URL format, or IP address if the called subscriber does not pick up the handset within a specified time (as entered in »Time Out).

Set Up Call Forwarding

You may enable all three call forwarding modes at the same time. In this case the TA will only use »Call Forward Unconditional« (All Forward). This call forwarding mode has the highest priority. The two remaining call forwarding modes may be active concurrently.

- To enable the desired call forwarding mode, choose »On«.
- Under »All Fwd No.:«, »Busy Fwd No.:« or »No Answer Fwd No.:« you can use the »Name« text box to enter a name for the forwarding destination.
- Under »URL« you enter either the phone number, the phone number in URL format or the IP address of the subscriber to whom calls should be forwarded.
- Under »No Answer Fwd Time Out« you specify the number of calls after which Call Forwarding on No Answer should kick in and redirect calls to the specified destination. You can choose any number between 2 and 8 ringing tones (»2~8 Ring«).
- Confirm your entries by clicking the »Submit« button.

Time Synchronization Setup (SNTP Settings)

It is useful to configure a timer server in your network so that your Telephone remains synchronized within the network. This server can be installed at an external location in the Internet as a so-called Public Time Server or in your own network. If you have configured a computer within your network as the Time Server, enter the IP address of that computer here.

SNTP

- Here, you can activate time acceptance. Select »On«.

Time Synchronization

(Time Server)

- Under the »Primary Server« and »Secondary Server« setup items, enter the IP addresses of the »time synchronization sources«. Here, you can enter two different addresses. This allows the time to be accepted via a second server in the event of loss of the first server.

Time Zone

(Time Zone)

- Here, enter the time difference between the standard time »Greenwich (Mean) Time« and your own location. For Central Europe the time zone needs to be set to + one hour (+ 01:00). Please note that Daylight Saving Time may be in force when setting the time zone.

Synchronization Time

(Sync. Time)

- Here, enter the time (»Sync. Time«) after which a new time synchronization attempt is to be made.
- Confirm your entries by clicking the »Submit« button.

SNTP Settings

You could set the SNTP servers in this page.

SNTP: On Off

Primary Server:

Secondary Server:

Time Zone: GMT + : (hh:mm)

Sync. Time: : : (dd:hh:mm)

Volume Setting

You can set the handset volume, the dial tone gain and the handset gain. Click »Submit« to confirm.

- Under » »Handset Volume« you can set the handset volume.
- Under » »Speaker Volume« you can set the speaker volume.
- Under » »Ringer Volume« you can set the dial tone gain.
- Under » »Handset Gain« you can set handset gain.
- Under »Speaker Gain« you can set the microphone gain.

Volume Setting

You could set the volume of your phone in this page.

Handset Volume: (0~15)

Speaker Volume: (0~15)

Ringer Volume: (0~10)

Handset Gain: (0~15)

Speaker Gain: (0~15)

Melody Setting

You can choose between 4 different ringing melodies.

Confirm your entries using the »Submit« button.

Block Settings (Do Not Disturb)

On this page you can set up the »Blocking« feature. Select whether calls are not to be signaled at any time, or only for a defined period at this phone (»DND Always« set to »On«), or whether the phone is to be set to »Idle« for a defined period (»DNDPeriod«).

No Ringing (DND Always)

Incoming calls will not ring your phone until you deactivate this function.

- To enable »Blocking« (DND Always) choose »On«.

No Call Signaling by time (DND Period)

- Here, you can activate »Idle« (DND Period) for a defined period. Select »On«.
- In the »From« and »To« text boxes enter the start and end times of the period during which ringing should be suppressed. If the time of day specified for »From« occurs later than the one specified for »To«, ringing will be suppressed until that time on the following day.
- Confirm your entries by clicking the »Submit« button.

Dial Plan feature

Your phone can complete and dial numbers automatically when the first few numbers that you dial match the programmed "Replacement rules". When you have made your settings click the button »Submit« to confirm them.

Dial Plan

You could the set the dial plan in this page.

Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 1:	<input type="text"/>	+ <input type="text"/>
Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 2:	<input type="text"/>	+ <input type="text"/>
Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 3:	<input type="text"/>	+ <input type="text"/>
Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 4:	<input type="text"/>	+ <input type="text"/>
Auto Dial Time:	<input type="text" value="5"/> (3~9 sec)	

Description of Symbols

x	0,1,2,3,4,5,6,7,8,9
+	or

- Drop Prefix: When set to »No«, the number present in the front field is placed in front of the phone number, as defined by the replacement rule. When set to »Yes«, the number in the front field is used in place of the number in the rear field, as defined by the replacement rule.
- Replace rule: Defining the Replacement Rule.
- Auto Dial Time: Time period prior to the beginning of automatic dialing after inputting the last digit of the phone number. The default setting is 5 seconds.

Example:

Dial Plan

You could the set the dial plan in this page.

Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 1:	<input type="text" value="002"/>	+ <input type="text" value="8163+8662"/>
Drop prefix :	<input checked="" type="radio"/> Yes: <input type="radio"/> No	
Replace rule 2:	<input type="text" value="006"/>	+ <input type="text" value="002+003+004+005+007+009"/>
Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 3:	<input type="text" value="009"/>	+ <input type="text" value="12"/>
Drop prefix :	<input type="radio"/> Yes: <input checked="" type="radio"/> No	
Replace rule 4:	<input type="text" value="007"/>	+ <input type="text" value="5xxx+35xx+21xx"/>
Auto Dial Time:	<input type="text" value="5"/> (3~9 sec)	

Replace rule 1 (Ersetzungsregel)

Example: After entering the first four digits 8163 (or 8662), the digit sequence »002« is placed in front of the phone number.

The number »002+8163+xxxxx...« is then dialed (or »002+8662+xxxxx...«).

Replace rule 2:

The digit sequences 002, 003, 004, 005, 007 and 009 are replaced by the digit string 006. In the example shown here, the number »006+xxxxx...« is dialed.

Replace rule 3:

If 12 is input as the first digit string, the digit string »009« will be placed in front of it for dialing. The number that will then be dialed is »009+12+xxxxx...«.

Replace rule 4:

- After inputting the digit 5 and three other digits, 007 will be placed in front of the number. In the example shown here, the number »007+5xxx« is then dialed.
- After inputting the digit 5 and four other digits, 007 is not placed in front of the number. In the example shown here, the number »5xxxx« is then dialed.
- After inputting the digit string 35 (or 21) and two other digits, 007 is placed in front of the number. In the example shown here, the number »007+35xx« (or »007+21xx«) is then dialed.

Call waiting setting

Where required, the Call waiting function can be de-activated so that no further incoming call is signaled.

The screenshot shows a web page titled "Call Waiting Setting". Below the title, there is a message: "You could enable/disable the call waiting setting in this page." Below this message, there is a label "Call Waiting:" followed by two radio buttons: "On" (which is selected) and "Off". At the bottom of the form, there are two buttons: "Submit" and "Reset".

Softkey Setting

You can also configure corresponding keys for »Pick-up« and »Voice Mail«. These keys must be present on the phone before the function can work properly however.

- Pick up key: Enter the key that is to be used for accepting incoming calls.
- Voice mail key: Enter the key for Voice Mail.

The screenshot shows a web page titled "Soft-key Setting". Below the title, there is a message: "You could configure the soft-key setting in this page." Below this message, there are two input fields: "Pick up key:" and "Voice mail key:". Each input field is highlighted with a yellow background. At the bottom of the form, there are two buttons: "Submit" and "Reset".

Automatic dialing (Hot Line Setting)

When you lift the handset the number you have configured is dialed automatically.

The screenshot shows a web page titled "Hot line Setting". Below the title, there is a message: "You could set the hot line in this page." followed by a horizontal line. Underneath, there is a section labeled "Use Hot Line :" with two radio buttons: "Enable" (unselected) and "Disable" (selected). Below this is a text input field labeled "Hot line number:" which is currently empty. At the bottom of the form are two buttons: "Submit" and "Reset".

Programming a direct dial-in

- Under »Use Hotline« check »Enable« to activate the hotline function.
- Under »Hotline number« enter the hotline number as the IP address, or the registered user name.

Confirm your entries by clicking the »Submit« button.

Appointment reminder calls (Alarm setting)

Your phone will then issue a signal each day at the programmed time.

- Alarm: Activate/De-activate the appointment function using »On« / »Off«.
- Alarm Time: Input the appointment time in the 24-hour format.

The screenshot shows a web page titled "Alarm Settings". Below the title, there is a message: "You could set the alarm time in this page." followed by a horizontal line. Underneath, there is a section labeled "Alarm:" with two radio buttons: "ON" (unselected) and "OFF" (selected). Below this is a text input field labeled "Alarm Time:" with two small input boxes for hours and minutes, followed by "(hh:mm)". Below that is a text input field labeled "Current time:" showing "2006-10-31 12:13". At the bottom of the form are two buttons: "Submit" and "Reset".

Network

Network Status

By using the »Network Status« menu item you can check the current status of the WAN and LAN settings.

Network Status	
This page shows current status of network interfaces of the system.	
Interface 0	
Type:	DHCP Client
IP:	192.168.1.51
Mask:	255.255.255.0
Gateway:	192.168.1.250
DNS Server 1:	168.95.192.1
DNS Server 2:	168.95.1.1
Interface 1	
Type:	DHCP Server
IP:	192.168.123.1
Mask:	255.255.255.0
Gateway:	192.168.123.1
DNS Server 1:	168.95.192.1
DNS Server 2:	168.95.1.1

WAN Settings

This page lets you configure the network setup of the WAN port on the phone.

LAN Mode

- If LAN Mode is set to »Bridge« both Ethernet ports are physically interconnected in a fully transparent fashion. You need this option if the phone is interconnected with an external NAT router.
- If LAN Mode is set to »NAT«, the integrated NAT is activated. This setting is useful for ADSL users who don't have access to a NAT router.

IP Type

- Fixed IP:
Sets a fixed IP address for the WAN port.
- DHCP Client:
The IP address the phone has obtained from an upstream router or cable modem is shown.

PPPoE

- Under »PPPoE Setting« you enter the »User Name« and »Password« given to you by your provider. In this mode the phone gets the IP address and the appropriate subnet mask from the DHCP server of your provider. Entries for the DNS server must be made manually. You may also enter a virtual MAC address if you have obtained one from your provider.
- Confirm your entries by clicking the »Submit« button.

WAN Settings

You could configure the WAN settings in this page:

LAN Mode: Bridge NAT

WAN Setting

IP Type: Fixed IP DHCP Client PPPoE

IP:

Mask:

Gateway:

DNS Server1:

DNS Server2:

MAC:

PPPoE Setting

User Name:

Password:

LAN Settings

If you wish to set up the phone's integrated NAT on this page, you must deactivate Bridge mode beforehand.

LAN Settings

- The «LAN Settings» page lets you set up address translation for the network. Also featured on this page are options for setting the local IP address (IP), the subnet mask (Mask), and the MAC address (MAC).

DHCP Server

- These options enable (On) and disable (Off) the DHCP Server.
- Settings under »LAN Settings« are »Start IP«, »End IP«, the lifetime in days and hours of a dynamic IP address allocated by the DHCP server (»Lease Time«), as well as the activation status of the DHCP servers.

LAN Settings

You could configure the LAN settings in this page:

LAN Setting

IP:

Mask:

MAC:

DHCP Server

DHCP Server: On Off

Start IP:

End IP:

Lease Time: : (dd:hh)

DynDNS Settings

DynDNS or Dynamic Domain Name System is a service on the Internet that maintains a fixed host name allocation for devices with a dynamically changing IP address. This services allows a PC to be addressed using an invariable domain name.

The »DDNS Settings« page lets you configure the DynDNS setup. Prior to entering the necessary information you need a DDNS account. Confirm your entries by clicking the »Submit« button.

VLAN Settings

A Virtual Local Area Network (VLAN) is a local virtual network that resides in a physical network. It most widely used implementation is specified in the IEEE 8021Q standard.

There are two sections for configuring VLAN settings:

- one for VoIP packets that get through to the telephone,
- one for VLAN settings in NAT mode

Two kinds of packets may be received:

- VoIP packets
- Packets routed to the PC via the LAN port.

VLAN packets:

- If you activate the »VLAN packets« option, all incoming packets are verified for a correct IP address and VID, provided that you have made the appropriate settings for VID, User Priority and CFI.

VID:

- Please set the VID as specified by your Service Provider.

User Priority:

- defines a user priority using eight different priority levels (2^3). IEEE 802.1P specifies the use of the three user priority bits. Normally, this value is defined by your Service Provider.

CFI:

- The Canonical Format Indicator is always set to zero by Ethernet Switches. CFI is used to ensure the compatibility of Ethernet and Token Ring networks. When an Ethernet interface receives a frame with a CFI value of "One", that frame should not be forwarded to an unmarked interface without any processing.
- If you activate the VLAN Packets option and enter values for VID, User Priority and CFI, all incoming packets that bear the IP address of the phone and the same VID will be accepted. Packets that have the phone IP address, but a different VID are rejected by the phone. Packets with a different IP address are routed to the PC via the LAN interface.

DMZ-Setting

- DMZ: When set to »On«, all packets (except for SIP-specific ones) will be forwarded to the IP address that has been entered under »DMZ Host IP«.
- DMZ Host IP: Input the IP address that is to be used for the DMZ.

DMZ Setting

You could configure your demilitarized zone setting in this page.

DMZ: On Off

DMZ Host IP:

Configuring a virtual server (Virtual Server Settings)

You can configure the virtual server on this page.

- Virtual Server Page: You can configure up to 24 »Virtual Servers«.
- Enable: Activating the specific server.
- Protocol: Defining the TCP or UDP protocol.
- In Port: Defining the internal port.
- Ex Port: Defining the external port.
- Server IP: Setup of Server IP Address.
- Select: Selecting the configuration
- Enable Selected: Activating the selected server.
- Delete Selected: Delete the selected server.
- Delete All: Delete all entries.
- Reset: Resetting all entries.
- Add Server: Adding a configuration.

Virtual Server Settings

You could set your virtual servers in this page. The usual port numbers are WEB [TCP 80], FTP (Control) [TCP 21], FTP(Data) [TCP 20], E-mail(POP3) [TCP 110], E-mail(SMTP) [TCP 25], DNS [UDP 53] and Telnet [TCP 23].

Virtual Server Page: page 1 ▾

Num	Enable	Protocol	In Port	Ex Port	Server IP	Select
0	<input type="checkbox"/>					<input type="checkbox"/>
1	<input type="checkbox"/>					<input type="checkbox"/>
2	<input type="checkbox"/>					<input type="checkbox"/>
3	<input type="checkbox"/>					<input type="checkbox"/>
4	<input type="checkbox"/>					<input type="checkbox"/>
5	<input type="checkbox"/>					<input type="checkbox"/>
6	<input type="checkbox"/>					<input type="checkbox"/>
7	<input type="checkbox"/>					<input type="checkbox"/>

Add Virtual Server

Num: (0-23)

Server IP:

Protocol:

Internal Port: External Port:

PPTP-Settings

The Point-to-Point Tunneling Protocol (PPTP) is a protocol used to set up a Virtual Private Network (VPN). This permits tunneling of the point-to-point protocol through an IP network, with the individual PPP packets in turn being grouped into GRE packets.

PPTP Settings

You could set the PPTP server in this page:

PPTP: On Off

PPTP Server:

PPTP Username:

PPTP Password:

SIP Settings

This menu item lets you set the Service Domain, make Codec settings, Codec ID settings and miscellaneous other settings.

You can make calls to and receive calls from other parties through the SIP account.

Active: Click «ON» to set the Service Domain to «Active» status, then enter the following data you have received from your service provider:

Display Name: Enter the name that you wish to have displayed.

User Name: Enter the user name.

Register Name: Enter the registration name.

Register Password: Enter the registration password.

Domain Server: Enter the Domain Server.

Proxy Server: Enter the Proxy Server.

Outbound Proxy: Enter the Outbound Proxy. If unknown, you may skip this option.

- If the »Status« row reads »Registered«, this indicates successful registration with the provider. The »PHONE« LED starts flashing in that case. The phone is now ready for VoIP calls.
- If you have more than one SIP account, please carry out all of the steps described above in order to register with the alternative providers.
- Confirm your entries using the »Submit« button.
- If you have more than one SIP account you can log on to other service providers in only a few easy steps.
- To conclude the configuration click »Submit«.

Service Domain Settings

You could set information of service domains in this page.

Realm 1 (Default)

Active: On Off

Display Name:

User Name:

Register Name:

Register Password:

Domain Server:

Proxy Server:

Outbound Proxy:

Subscribe for MWL: On Off

Status: Not Registered

Realm 2

Active: On Off

Display Name:

User Name:

Register Name:

Register Password:

Domain Server:

Proxy Server:

Outbound Proxy:

Subscribe for MWL: On Off

Status: Registered

Realm 3

Active: On Off

Display Name:

User Name:

Register Name:

Register Password:

Domain Server:

Proxy Server:

Outbound Proxy:

Subscribe for MWL: On Off

Status: Not Registered

Port Setting

Under »Port Setting« you can specify the SIP and the RTP port numbers. Providers may use different SIP/RTP port settings. Please consult with your provider in order to learn about the correct port numbers to be entered here. Confirm your entries by clicking the »Submit« button.

Factory Default Setting: SIP-Port 5060, RTP-Port 60000.

Port Settings

You could set the port number in this page.

SIP Port: (10~65533)

RTP Port: (10~65533)

Codec Settings

The »Codec Settings« page lets you set »Codec Priority«, »RTP packet length« and configure the VAD function. Be sure to enter this data exactly as specified by your provider.

Codec Settings

You could set the codec settings in this page.

Codec Priority

Codec Priority 1:
 Codec Priority 2:
 Codec Priority 3:
 Codec Priority 4:
 Codec Priority 5:
 Codec Priority 6:
 Codec Priority 7:
 Codec Priority 8:

RTP Packet Length

G.711 & G.729:
 G.723:

G.723 5.3K

G.723 5.3K: On Off

Voice VAD

Voice VAD: On Off

Codec ID Setting

On the »Codec ID Setting« page, you can specify the Codec ID. Be sure to enter this data exactly as specified by your provider.

Codec ID Setting

You could set the value of Codec ID in this page.

Codec Type	ID	Default Value
G726-16 ID:	<input type="text" value="23"/> (95~255)	<input checked="" type="checkbox"/> 23
G726-24 ID:	<input type="text" value="22"/> (95~255)	<input checked="" type="checkbox"/> 22
G726-32 ID:	<input type="text" value="2"/> (95~255)	<input checked="" type="checkbox"/> 2
G726-40 ID:	<input type="text" value="21"/> (95~255)	<input checked="" type="checkbox"/> 21
RFC 2833 ID:	<input type="text" value="101"/> (95~255)	<input checked="" type="checkbox"/> 101

DTMF Setting

Under »DTMF Setting«, you can specify options for DTMF dialing. The options include RFC 2833 (Outband DTMF), Inband DTMF, and DTMF SIP Info. The factory setting is Inband-DTMF. To use DTMF in-call dialing (for example 2833), you may have to select the Inband DTMF option. You may need DTMF in-call dialing when you call, for example, a public agency and your calls are handled by an automated interactive voice recognition system. Once you are connected the voice recognition system may prompt you to enter a certain sequence of digits. By doing so, you may be automatically put through to a department that can answer your inquiry.

DTMF Setting

You could set the DTMF setting in this page.

RFC 2833
 Inband DTMF
 Send DTMF SIP Info

RPort function

You can activate/de-activate the »RPort« on this page. You can obtain helpful information about this from your provider.

RPort Setting

You could enable/disable the RPort setting in this page.

RPort: On Off

Other Settings

On the »Other Settings« page you can configure Hold mode through RFC and QoS (Quality of Service). Please follow the instructions given by your providers when changing these settings.

Confirm your entries by clicking the »Submit« button.

The QoS value allows for prioritizing voice packets. Higher values mean higher priority for voice packets on the Internet. It should be noted that any intervening systems on the Internet must support the QoS function.

Other Settings

You could set other settings in this page.

Hold by RFC: On Off
 Voice QoS (Diff-Serv): (0~63)
 SIP QoS (Diff-Serv): (0~63)
 SIP Expire Time: (15~86400 sec)
 Use DNS SRV: On Off

NAT Trans.

Under » »NAT Trans.« you can set up the STUN server for the SIP service.

STUN Setting

The STUN function must be activated in order for a telephone registered with the SIP server to work correctly downstream from a SIP server. You can enter the IP address of the STUN server and the STUN port number.

STUN Setting

You could set the IP of STUN server in this page.

STUN: On Off

STUN Server:

STUN Port: (1024~65535)

Other features

You can use the Auto Configuration Setting function to have the phone configured automatically.

Automatic Configuration Setup (Auto Config)

The »Auto Config« menu item takes you to the »Auto Configuration Setting« page. This page allows you to download configurations stored on a TFTP or FTP server using the auto configuration function. This setup approach may come in handy for new users, allowing them to get started right away by automatically downloading a ready-for-use configuration setup. Before you can activate Auto Configuration, you must go to the »Network« setup page and select the »Bridge« and »Fixed IP« modes. After activating that function by clicking »On«, click the »Submit« button. Do not forget to click the »Save« button in the »Save Change« window. The telephone reboots now, then downloads the predefined setup automatically from the TFTP or FTP server.

Auto Configuration Setting

You could enable/disable the auto configuration setting in this page.

Auto Configuration: Off TFTP FTP HTTP

TFTP Server:

HTTP Server:

HTTP Path:

FTP Server:

FTP Username:

FTP Password:

File Path:

Copying the MAC address (MAC Clone Setting)

Copying the MAC address for the PC connected to the phone LAN port to the phone's WAN port. To conclude configuration click »Submit«.

MAC Clone Setting

You could enable/disable the MAC clone setting in this page.

MAC Clone: On Off

Tone Settings

You can set the acoustic signals and their speeds on this page.


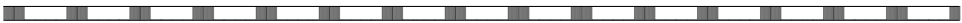



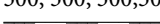
- Dial Tone** Dial tone
- Ring Back Tone** Call waiting tone
- Busy Tone** Busy tone
- Error Tone** Negative acknowledgement signal
- Ring Tone** Ringing signal
- Insert Tone** Positive acknowledgement signal

Tones Settings

You could configure your tones settings in this page.

	Dial Tone	Ring Back Tone	Busy Tone	Error Tone	Ring Tone	Insert Tone
Cadence On:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hi-Tone Freq.:	<input type="text" value="440"/>	<input type="text" value="480"/>	<input type="text" value="620"/>	<input type="text" value="620"/>	<input type="text" value="480"/>	<input type="text" value="440"/>
Lo-Tone Freq.:	<input type="text" value="350"/>	<input type="text" value="440"/>	<input type="text" value="480"/>	<input type="text" value="480"/>	<input type="text" value="440"/>	<input type="text" value="350"/>
Hi-Tone Gain:	<input type="text" value="4522"/>	<input type="text" value="2261"/>	<input type="text" value="2261"/>	<input type="text" value="2261"/>	<input type="text" value="15360"/>	<input type="text" value="2261"/>
Lo-Tone Gain:	<input type="text" value="2261"/>	<input type="text" value="2261"/>	<input type="text" value="2261"/>	<input type="text" value="2261"/>	<input type="text" value="15360"/>	<input type="text" value="1130"/>
On Time 1:	<input type="text" value="0"/>	<input type="text" value="200"/>	<input type="text" value="50"/>	<input type="text" value="30"/>	<input type="text" value="200"/>	<input type="text" value="30"/>
Off Time 1:	<input type="text" value="0"/>	<input type="text" value="400"/>	<input type="text" value="50"/>	<input type="text" value="20"/>	<input type="text" value="400"/>	<input type="text" value="20"/>
On Time 2:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="30"/>
Off Time 2:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="400"/>
On Time 3:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Off Time 3:	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Example for calling cycles and acoustic signals of pabx systems in DE, AT, BE, HU, PL, SL, GR

Acoustic signals	Frequency (Hz). Attenuation (dB)	Cycle rate for sound / pauses in milliseconds
Dial tone	420 / -8	200, 300, 200, 300, 200, 800 ... 
Busy tone	420 / -8	200, 400 ... 
Ringing signal	420 / -8	1000, 4000 ... 
Call waiting tone	420 / -8	200, 300, 200, 1300 ... 
Ack. signal	320+420/ -8	700 
Neg. acknowledgment	320+420/ -8	300, 300, 300, 300, 300 

Setup example

@	Dial Tone	Ring Back Tone	Busy Tone	Error Tone	Ring Tone	Insert Tone
Cadence On:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hi-Tone Freq.:	425	425	425	425	425	435
Lo-Tone Freq.:	0	0	0	0	0	0
Hi-Tone Gain:	4522	4522	4522	4522	4522	4522
Lo-Tone Gain:	0	0	0	0	0	0
On Time 1:	30	100	20	30	100	70
Off Time 1:	20	400	40	30	400	0
On Time 2:	30	0	0	0	0	0
Off Time 2:	20	0	0	0	0	0
On Time 3:	20	0	0	0	0	0
Off Time 3:	80	0	0	0	0	0

Advanced Setting

ICMP Not Echo

- Activating reply barring for a »Ping signal.

Send Anonymous CID

- Activating number suppression.

Send Flash Event

- Activating flash signaling as DTMF EVENT or as SIP INFO.

SIP Encrypt

- Encrypting SIP packets using INFINET, AVS, WALKERSUN1 or WALKERSUN2.

Advanced Setting

You could change advanced setting in this page.

ICMP Not Echo: Yes No

Send Anonymous CID: Yes No

Send Flash event: Disabled

SIP Encrypt: Disabled

Submit Reset

System Authority

User Password

The »User Password« menu item takes you to the »User Password« page. On this page, you can change your »Username« and »Password«.

New username

- Use this text box to enter your new User Name.

New password

- Use this text box to enter a new password.

Confirmed password

- Use this text box to enter your new password one more time.

Confirm your entries by clicking the »Submit« button.

System Authority

You could change the login username/password in this page.

New username:

New password:

Confirmed password:

Submit Reset

Save Changes

On the »Save Changes« page you can permanently save the changes you made to the phone setup.

- Click the »Save« button.



Update

With the »Update« menu item and the »New Firmware« submenu item the phone offers two methods for loading the latest firmware in a Local PC or TFTP session.

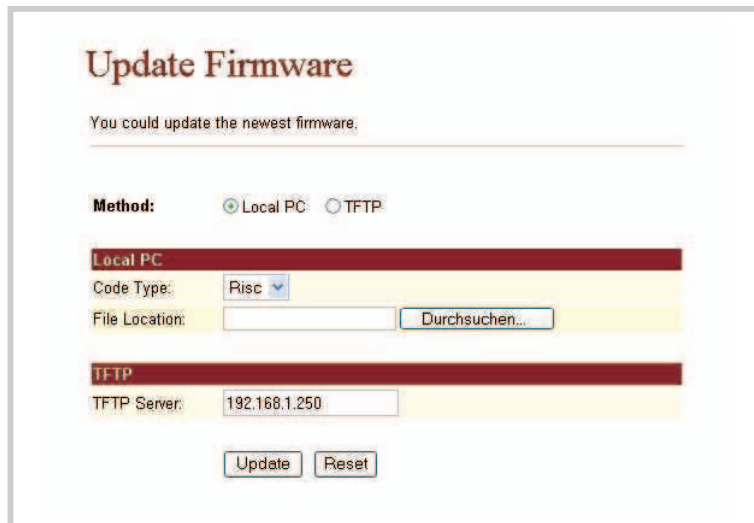
- Select the desired type of server, HTTP or TFTP.

Local PC

- Now select the type of firmware code (»Code Type«): Risc or DSP code (Risc code is the preferable option).
- **Code Type:**
Click the »Browse« button in order to select the storage location for Local PC.
- When you are done, click the »Update« button.

TFTP

- Enter the IP address of the TFTP server from which you wish to download firmware.
- When you are done, click the »Update« button.



Automatic UpdateAuto Update

Simple update

You should use this version when updating your phone. Use of the functions described below requires a great deal of expertise in this field. This is why only the various setting options are indicated there.

First, enter the IP address to be used for the update on the Web page. Example: <http://192.168.1.100:9999/update.htm>. In the example shown here, 192.168.1.100 is the IP address for your phone.

- Use »Search« to search for, and then load the required »ROM« file. Then click the button »Update«.
- While the update is running, ensure that there is no interruption of power supply, or any disruption of the connection to your PC.

Advanced update

Automatic firmware update. The settings on this page must match those on the page Auto Configuration Setting.

Update via

Selecting the automatic update process.

Check new firmware

- At the »Power ON« setting, a search is conducted for new firmware when the phone is switched on. At the setting »Scheduling«, a search is conducted for new firmware based on the programmed time schedule.

Scheduling (Date)

- Inputting the duration (number of days) during which a search is conducted for new firmware.

Scheduling (Time)

- Inputting the period during which a search is conducted for new firmware. The search will then be performed at any time during this period.

Automatic Update

- At the »Notify only« setting, the user is notified of available new firmware by a message on screen. No automatic update is conducted however. At the »Automatic« setting, the firmware will be updated fully automatically.

Firmware File Prefix

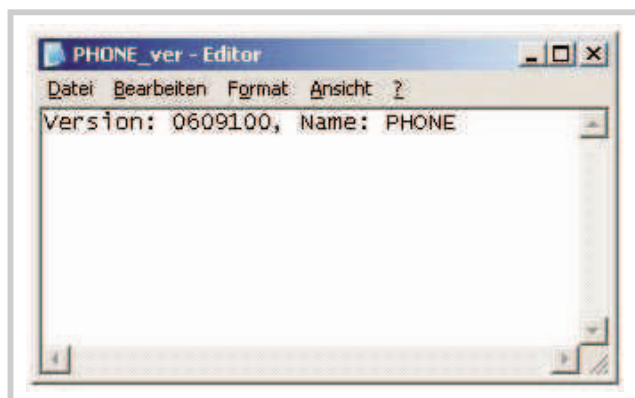
- Normally, this is also the product name. A specific search is made for firmware with a similar product name.

Next update time

- The time for the next search for firmware and updating.

Programming an auto update file:

- The file name must consist of the »Firmware File Prefix« + _ver.dat; here in our example PHONE_ver.dat
- The following information must be contained in the file (example):
- Version: 0609100, Name: PHONE_
- '0609100« is the designation for the updated firmware; »PHONE_« is the product designation (Firmware File Prefix).



The system reads the PHONE_ver.dat file and then checks the version number. If the version number is more recent, updating is then performed fully automatically. It must also be noted that the designation + the version should also be contained in the file name; in the example shown here PHONE_0609100.gz. Ensure that the file name is spelled correctly.

Copy the file PHONE_ver.dat, together with the updated firmware to the http, FTP or TFTP server that you have specified in the path for automatic updates.

Standard Configuration (Default Setting)

You can restore the standard factory settings for your phone with Default Setting. To do this, just click the button Restore. Your phone will then carry out a restart using the standard factory settings.



Reboot

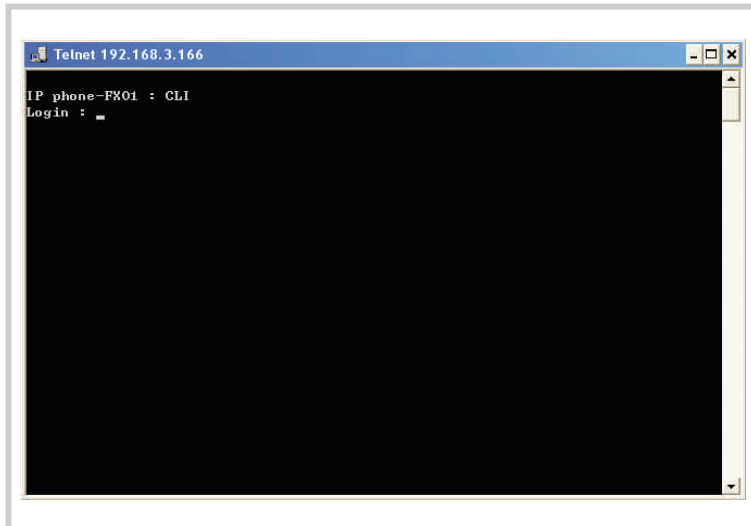
You can restart your phone using the Reboot function. You only need to click the button Reboot for this. The phone takes care of everything else automatically.



Configuring the phone via Telnet (only under Windows XP)

Configuration

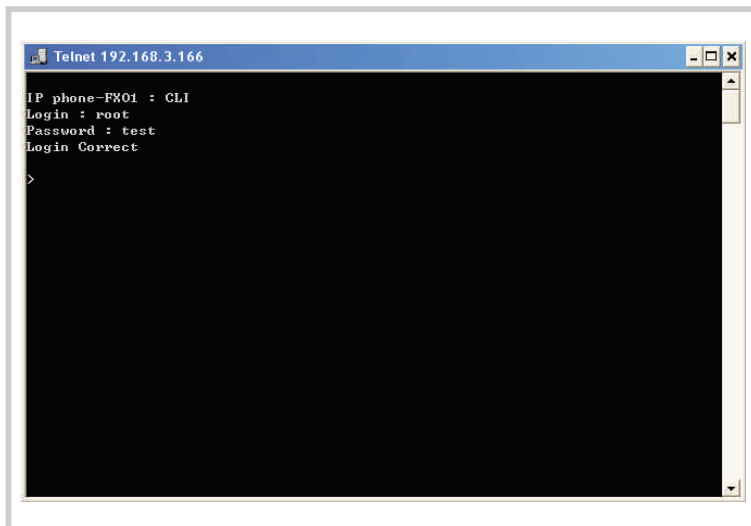
On the PC click »Start« and select the option »Run«. An input dialog window is then displayed in which you can enter the telnet address 192.168.1.100. Start the procedure by clicking »OK«. As an alternative to this, you can open a DOS window and enter the telnet address 192.168.1.100 there. The following display is then shown on the screen:



```
Telnet 192.168.3.166
IP phone-FX01 : CLI
Login : _
```

Login to phone

When you press »Enter« at the hyperterminal, the »Login: » line is displayed. Enter »admin« and confirm your input by pressing »Enter«. The »Password:« line then appears. ». Enter »24234880« and confirm your input by pressing »Enter«. You are now logged on to your phone.



```
Telnet 192.168.3.166
IP phone-FX01 : CLI
Login : root
Password : test
Login Correct
>
```

Configuration using the command line interpreter (CLI)

CLI Command line:

Itno	Command	Description
1	?	Show CLI Command
2	arp	ARP Configuration
3	ipconfig	Interface Configuration
4	save	Save to flash
5	reboot	Reboot
6	exit	Exit
7	debugmode	Enter Debug Mode
8	update	Update Flash Code/RAM
9	auth	Change User Name and Password
10	nat	NAT Configuration
11	dns	DNS Configuration
12	ping	ping [-lN] [IP-addr host-name]
13	sip	SIP Configuration
14	ddns	DDNS Configuration
15	sntp	SNTP Configuration
16	vlan	VLAN Configuration
17	time	Get System Time
18	mactab	Show MAC Learning Table
19	dump	Read/Write Memory
20	book	Edit phone book
21	reload	Reload Factory Setting
22	watchdog	WatchDog Function
23	phone	Phone Setting
24	weblogo	Change Web's logo
25	dsp	Show dsp type
26	addport	Add Nat Port Mapping
27	cid	Select slic Cid
28	slic	read or write slic registers
29	ver	Firmware Version

arp-function

Itno	Command	Description
1	?	Show 'arp' Option
2	-a	Show ARP Table
3	-d	Delete ARP Table
4	-s	Set Static ARP Table
5	(null)	Show ARP Table

ipconfig-function

Itno	Command	Description
1	?	Show 'ipconfig' Option
2	-if0	Interface 0
3	-if1	Interface 1
4	-if2	Interface 2
5	-h	Set Host Name
6	-a	Set ARP Cache Expire
7	-r	Restore Current Setting
8	(null)	Show IP Setting

ipconfig -ifN-function N is 0, 1, 2

Itno	Command	Description
1	?	Show 'ipconfig -ifN' Option
2	-t	Set Host Type
3	-m	Set MAC Address
4	-i	Set IP Address
5	-nm	Set Net Mask
6	-g	Set Gateway
7	-dns0	Set Primary DNS server
8	-dns1	Set Secondary DNS server
9	-dr	Set Default Route
10	-nat	Set NAT
11	on	Enable Interface
12	off	Disable Interface
13	-dhcps	DHCP Server Setting
14	-ddns	Set DDNS
15	-bridge	Set Bridge
16	-dev0	Set Device 0 Setting
17	-dev1	Set Device 1 Setting
18	-dev2	Set Device 2 Setting
19	(null)	Show Interface Setting

save function

Itno	Command	Description
1	?	Show 'save' Option
2	-book	Save phone book
3	-sys	Save system setting

reboot function

Rebooting the telephone.

exit function

Terminating entry through CLI.

debugmode

Launching the debug mode.

updat-function

Itno	Command	Description
1	?	Show 'update' Option
2	-os	Update OSImage(IP filename)
3	-dsp	Update DSP Image(IP filename)
4	-all	Update All Image(IP filename)
5	-server	Update Server (IP filename length)
6	-pcm	PCM(IP filename)
	-alaw	alaw (IP filename)
	-ulaw	ulaw (IP filename)
	-g729	g729 (IP filename)
	-g723	g723 (IP filename)
	-g726.16	g726.16 (IP filename)
	-g726.24	g726.24 (IP filename)
	-g726.32	g726.32 (IP filename)
	-g726.40	g726.40 (IP filename)

IP is the IP-address for the TFTP-server, the filename for downloading into the system.

»IP« is the IP-address for the TFTP-server, the »filename« for downloading into the system.

auth-function

Itno	Command	Description
1	?	Show 'auth' Option
2	-admin	Change Administrator user name/password
3	-sys0	Change System user0 user name/password
4	-sys1	Change System user1 user name/password
5	-sys2	Change System user2 user name/password
6	-sys3	Change System user3 user name/password
7	-sys4	Change System user4 user name/password
8	-norm0	Change Normal user0 user name/password
9	-norm1	Change Normal user1 user name/password
10	-norm2	Change Normal user2 user name/password
11	-norm3	Change Normal user3 user name/password
12	-norm4	Change Normal user4 user name/password
13	-ppp	Change PPP user name/password
14	(null)	Show auth Setting

Always possible as an addendum

Itno	Command	Description
1	?	Show 'auth' Option
2	-user	Change User Name. 'auth -sys3 -user xxx '
3	-pass	Change Password. 'auth -sys3 -pass xxx xxx'
4	(null)	Show auth's System/PPP Setting

You will have to enter the new password twice on the command line if you wish to change the old password.

nat-function

Itno	Command	Description
1	?	Show 'nat' Option
2	-vs	Set 'nat -vs' Option
3	-dmz	Set 'nat -dmz' Option
4	(null)	Show NAT Setting

DMZ-input only

Itno	Command	Description
1	?	Show 'nat -dmz' Option
2	on	EnableDMZ
3	off	EnableDMZ
4	-ip	Set DMZ IP address
5	(null)	Show DMZ Setting

dns -function

Itno	Command	Description
1	?	Show 'dns' Option
2	-q	DNS query. dns -q domain-name
3	(null)	Show DNS Table

ping -function

Itno	Command	Description
1	?	Show 'ping' Option
2	-l	ping [-l N] [IP-addr host-name]
3	(null)	ping [IP-addr host-name]

sip -function

Itno	Command	Description
1	?	Show 'sip' Option
2	-proxy0	sip -proxy0
3	-proxy1	sip -proxy1
4	-proxy2	sip -proxy2
5	-upnp	sip -upnp on/off/show
6	-exts	sip -exts sip upnp external-port
7	-extr	sip -extr rtp upnp external-port
8	-sipp	sip udp port
9	-rtpp	sip rtp port
10	-stun	sip -stun on/off
11	-rport	sip -rport on/off
12	-sserver	sip -sserver stun-server
13	-out	sip -out outbound-proxy
14	-dump	sip -dump
15	-log	sip -log on/off
16	-drtp	sip -drtp 0/1/2
17	-rtpnc	sip -rtpnc on/off
18	-wanip	sip -wanip
19	-nattype	sip -nattype
20	-hbyrfc	sip -hbyrfc
21	-dereg	sip -dereg
22	-restart	sip -restart
23	-jbt	sip -jitter buffer Threshold
24	(null)	Show SIP Setting

ddns -function

Itno	Command	Description
1	?	Show 'ddns' Option
2	-type	Set DDNS Type
3	-host	Set Host Name
4	-wild	Set Wild Card Mode
5	-mx	Set Mail Exchanger
6	-backmx	Set Mail Exchanger Mode
7	-offline	Set Offline Mode
8	-user	Set Login User Name
9	-pass	Set Login Password
10	(null)	Show DDNS Setting

sntp -function

Itno	Command	Description
1	?	Show 'sntp' Option
2	-on	Enable SNTP Client
3	-off	Disable SNTP Client
4	-ip1	Set SNTP Server1 IP
5	-ip2	Set SNTP Server2 IP
6	-mode	Set SNTP Client Mode
7	-zone	Set GMT Time Zone: [+ -][hour]:[min]
8	-adjust	Set Adjustment Time: [second]
9	(null)	Show SNTP Setting

vlan -function

Itno	Command	Description
1	?	Show 'vlan' Option
2	-tx	Tx Vlan setting
3	-rx	Rx Vlan setting
4	(null)	Show Vlan Setting

time -function

Itno	Command	Description
1	?	Show 'Time' Option
2	-t	Modify Time: hour:min:sec
3	-d	Modify date: year:mon:date
4	(null)	Show Data & Time

mactab -function

MAClearning table.

dump -function

Itno	Command	Description
1	?	Show 'dump' Option
2	-r	dump -r XXXXxxxx
3	-w	dump -w XXXXxxxx XX

book -function

Itno	Command	Description
1	?	Show 'book' Option
2	-a	Show answer list
3	-c	Show call list
4	-s	speed dial
5	-p	phone book

Reload function

Reloading the factory defaults.

watchdog -function

Itno	Command	Description
1	?	Show 'WatchDog' Option
2	on	Enable WatchDog
3	off	Disable WatchDog
4	(null)	Show WatchDog Setting

phone -Funktion

Itno	Command	Description
1	?	Show 'phone' Option
2	-autoanswer	phone auto answer
3	-vol	Volume setting
4	-block	Block Incoming call
5	-ring	Set Melody Ringer
6	-forward	Auto-forward Incall to Phone[0-9] in Book
7	(null)	Show Phone Setting

weblogo -function

Itno	Command	Description
1	?	Show 'weblogo' Option
2	-on	Vender Logo
3	-off	Crystal media Logo
4	(null)	Show weblogo Setting

dsp function

Shows the DSP-code type.

addport -function**cid -functions**

Itno	Command	Description
1	?	Show 'cid' Option
2	-off	Disable Slic Cid signal
3	-1	Tx FSK after 1st Ring
4	-2	Tx FSK before 1st Ring
5	-3	Tx DTMF before 1st Ring
6	-4	Tx FSK with Line reversal before 1st Ring
7	-5	Tx DTMF with Line reversal before 1st Ring
8	-time	FSK cid with time message
9	-single	Single type FSK CID
10	(null)	Show Cid Option

slic -function

Itno	Command	Description
1	?	Show 'slic' Option
2	-ring	Issue Ring signal
3	-r	read slic addr
4	-w	write slic addr
5	-a	read all slic reg
6	(null)	Show slic register

ver function

Displaying the current firmware version.

Appendix

Setting up an FWD account

- You can set up an account for VoIP communication at the Web site (www.freeworlddialup.com; www.freeworlddialup.com). After you have entered all the required data you will receive an e-mail from the FWD mail system containing your registration data.
- You can make the required settings in your phone after you have successfully set up your account.
- You can use a Web browser, Telnet or the hyperterminal and CLI commands to do this. You must enter the proxy name, the domain name, your user name and a password here. You can also specify the name that is to be displayed to other subscribers (nickname).
- After successfully logging on to the SIP server you can call other subscribers who are also logged on to that server. For this you only need to enter the subscriber's user name (login name) and then press »#«.
- To make calls to other subscribers over the Internet you first have to log on to a proxy server (with SIP server IP, domain IP, user name and password); be sure to activate the stun function first before your first attempt at placing calls.

Technical specifications

Hardware Overview

- Chip set – CM5000
- Data memory – 16M
- Program memory – 64M
- Ethernet ports: - 2 x 10/100M

Software Overview

Network Protocols

- SIP V1 (RFC2543), V2 (RFC3261)
- IP/TCP/UDP/RTP/RTCP
- ICMP/ARP/RARP/SNTP
- TFTP-Client/DHCP-Client/ PPPoE-Client, Static IP
- Telnet/HTTP server
- DNS-Client

Codec

- G.711
- G.723
- G.726
- G.729A
- G.729B

IP Assignment

- Static IP
- DHCP
- PPPoE

Voice Quality

- VAD (Voice Activity Detection)
- CNG (Comfortable Noise Generator)
- _LEEC (Line Echo Canceller)
- Packet Loss Compensation
- Adaptive Jitter Buffer

Security

- HTTP 1.1 Basic/Digest Authentication for web-based applications
- _MD5 for SIP authentication (RFC2069/ RFC 2617)

Configuration

- Internet Browser
- Telnet
- Keypad configuration

Firmware Upgrade

- TFTP
- HTTP

Operating requirements:

- Operating temperature: 0 to 50 °C

- Storage temperature: -10 to 60 °C
- relative humidity: 10 to 90% no dew

Electric requirements:

- Operating voltage: 9V DC
- Power supply: Input: 230 AC, Output: 9 VDC, 1,000mA
- Network interface: 2 X RJ-45 Ethernet connectors

Size:

- 198 x 176 x 60 mm (L x W x H)

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Konformitätserklärung

Declaration of conformity

Hersteller /Verantwortliche Person: Manufacturer / responsible person:	Funkwerk Enterprise Communications GmbH
Adresse: Address:	Südwestpark 94 90449 Nürnberg

erklärt, dass das Produkt (Typ): declares that the product:	Funkwerk IP50
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Telekommunikationsendeinrichtung
Telecommunications terminal equipment

Verwendungszweck: Intended use:	VoIP Telefon für offene Standards wie SIP zum Anschluss an ein Computer-Netzwerk (LAN). VoIP-telephone for open standards such as SIP for connection to a computer network (LAN).
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bei bestimmungsgemäßer Verwendung den grundlegenden Anforderungen gemäß Artikel 3 der Richtlinie 1999/5/EU des Europäischen Parlamentes und des Rates vom 09. März 1999 über Funkanlagen und Telekommunikationseinrichtungen (R&TTE) und die gegenseitige Anerkennung ihrer Konformität erfüllt.

complies with the essential requirements according to article 3 of Directive 1995/5/EC of the European Parliament and of the Council of 09. March 1999 relating to radio and telecommunications terminal equipment (R&TTE) including the mutual recognition of their conformity, when used for its intended purpose.

Angewandte harmonisierte Normen:

Relevant harmonized standards.

EN 60950-1: 2001 + A11:2004

EN 55022:1998 + A1:2000 + A2:2003

EN 55024:1998 + A1:2000 + A2:2003

Peine, 29.03.2007

Ort und Datum der Konformitätserklärung
Place and date of the declaration

Anschrift
Address

Fon:
Fax:



Dipl.-Ing. Peter Schumann, Konformitätsbeauftragter

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Subject to changes

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