SIEMENS

optiPoint 500

System-Specific Telephones
Key Modules, Adapters, Accessories
Service Providers

Service Manual

1P P31003-E8400-A100-3-7620

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases.

The required features should therefore be specified in each individual case at the time of closing the contract.

CE The device conforms to the EU guideline 1999/5/EG, as attested by the CE mark.

This device has been manufactured in accordance with our certified environmental management system (ISO 14001). This process ensures that energy consumption and the use of primary raw materials are kept to a minimum, thus reducing waste production.

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1 General Service Information

1.1 Service Concept

Faulty terminals and adaptors can be debugged on site by exchanging components/adaptors or replacing individual faulty elements, such as handsets, cords, covering panels, etc.

1.2 Safety Information

Setting Up the Equipment

The equipment is set up by the user or service technician. Training or orientation on how to use optiPoint500 device parts is not neccessary.

A mains socket may be necessary for operating telephones and options, depending on the scope of the configuration.
If more telephones are to be added later on, make sure that an adequate number of mains sockets are available for connecting the required local power supply units.

Damage to the Equipment

Only use tools and testers suitable for the job. Do not put devices with external damage into service.

Laying Cables

Lay the power and connection cables in such a way as to avoid accidents (no tripping) and damage to the cables.

Troubleshooting and Replacing Boards

Note the following when replacing boards:

● Service tasks should only be carried out by authorized personnel.

● Always replace boards with original spare parts.

● Always disconnect the system from the power source before replacing boards.

● Always following the instructions and take the proper precautions when handling boards that contain electrostatically sensitive devices.

Protecting Electrostatically Sensitive Devices

To protect electrostatically sensitive devices (ESD):

● Always put on an earthed wristband before performing any work on PC boards.

- Transport PC boards only in suitable protective packaging.

- When working on PC boards, always ensure that they are placed on a grounded conducting base.

- Always use soldering iron for soldering.

1.3 Safety Symbols

The following symbols are used in this manual to identify possible sources of danger.

Data Protection and Data Security

	Helpful suggestions

	Hazards that can cause damage to the hardware and software and even destroy it.

	General heat dissipation

	Electrostatically sensitive devices

Using Personal Data

In Germany, the processing and use of personal data are subject to various regulations, including the regulations of the Federal Data Protection Law (Bundesdatenschutzgesetz = BDSG). For other countries, please follow the appropriate national laws.

The aim of data protection is to protect the rights of individuals being affected by use of their personal data.

Guidelines for Members of Siemens Staff

Siemens staff are required to observe business and data secrecy as a result of the company's work rules.

In order to ensure that the statutory requirements during service - whether during "on-site service" or during "remote service" - are consistently met, you should always observe the following rules. You will not only maintain the interests of your and our customers, you will also avoid personal consequences.

Guidelines for Using Data

Conscious action helps maintain data protection and data security:

- Ensure that only appropriately authorized persons have access to customer data.

- Take full advantage of password assignment options; do not allow unauthorized persons to gain access to passwords by writing them down on a piece of paper or through other means.

- Ensure that no unauthorized person is able to process (store, modify, transmit, disable, delete) or use customer data in any way.

- Prevent unauthorized persons from gaining access to data media, e.g. on backup disks or printed reports. This applies to service calls as well as to storage and transport.

- Ensure that data media which are no longer required are completely destroyed. Ensure that no papers remain generally available.

- Work together with your contacts at the customer's company: This creates mutual confidence and reduces your own workload.

2 Product Description

OptiPoint 500 telephones are designed to facilitate access to the features of HiPath 3000/Hicom 150H and HiPath 4000/Hicom 300/300H. See the chapter on "Startup" for configuration information.

The operating principle is characterized by three dialog keys, which in conjunction with the display, facilitate interactive user prompting. In addition, the key LED principle indicates activated functions.

The numerous control functions are clearly laid out in submenus and can be read on the display (excluding "entry" model). Features can also be selected directly via the service key using a code. Important functions can be programmed on individual function keys.

optiPoint 500 telephones	entry	economy	basic	standard	advance
Function keys with LEDs	8	12	12	12	19
12-key keypad	●	●	●	●	●
2 keys (plus/minus)	●	●	●	●	●
Open listening	●	●	●		
Full duplex speakerphone mode				●	●
Adapter slots			1	1	2
USB 1.1 Interface			●	●	●
Headset port (121 TR9-5)					●
3 dialog keys		●	●	●	●
Display (characters)		2 x 24	2 x 24	2 x 24	2 x 24
Display background lighting					●
Interface for max. 2 key modules 2 key modules or 1 key module and 1 signature module			● ●	● ●	● ●
Wall mounting	●	●	●	●	●

2.1 optiPoint 500 Features at Hicom/HiPath

Features when Connecting to Hicom and HiPath

Optiset E IDs for telephones and options must be used when connecting optiPoint500 to one of the following systems:

- HiPath AllServe 150

- HiPath 3000

- Hicom 150 E/150 H

- Hicom 150 E/H Office

- Hicom 300 E/300 H

Features

- optiset E/optiPoint 500 mixed mode possible at SLMO.

- optiset E/optiPoint 500 mixed mode possible for host/client configuration with phone adapters.

- PC connection via integrated USB 1.1 interface (excluding entry) and special USB (client) cables with right-angle plug.

- CTI applications based on CallBridge TU for TAPI 2.1 available free of charge on the intranet (prerequisite: Windows 98 SE or Windows 2000).

- In optiPoint 500 advance, only 12 of the 19 Hicom/HiPath function keys are configurable. The remaining function keys can however be assigned destination call numbers via the optiPoint menu.

Additional Features when Connecting optiPoint 500 to HiPath 4000

- Support for the new optiPoint 500 IDs

- Additional ring tones (16 instead of 8)

- Call acceptance/cleardown function for "cordless" headsets

- Mobile station" for optiPoint signature module

- Busy lamp/door-opener control via a programmable key

- Adjustable display contrast (4 levels)

Modules (Add-On Components) and Adapters

● Modules (see Section 2.4 on page 2-9)

 The optiPoint 500 operating panel (basic model and later versions) can be expanded

 – using key modules with function keys

 – a signature module or

 – a busy lamp field

● Adapters (see Section 5)

 By using adapters in conjunction with telephones, specific workstation requirements can be satisfied.

 Additional devices can be directly connected to the workstation (e.g. PC, fax machines, telephones, headsets) by simply adding different adapters to the underside of the telephone.

2.2 Configuration Notes

● Mixed optiset E/optiPoint 500 telephone configurations possible on $U_{P0/E}$

● Mixed optiset E/optiPoint 500 host/client configuration (phone adapter) possible

● The options (key modules, adapters) for optiset E (5-volt technology) and optiPoint 500 telephones (3.3-volt technology) are not interchangeable

● PC connection to optiPoint 500 via USB1.1 interface (except for the "entry" and "economy" models)

 – only possible with Windows 98 SE or Windows 2000 with USB support

 – optiPoint 500 USB client interface, conforming to USB Specification 1.1

 – USB cable with right-angle plug available for optiPoint 500 basic/standard/advance

 – integrated USB1.1 interface replaces optiset E control/data adapter for CTI functions

 – integrated USB1.1 interface replaces optiset E with ISDN adapter for modem, NDIS-WAN miniport, and CAPI applications

● CallBridge TU (PC software available free of charge) offers CTI platform for TAPI 2.1-based CTI applications; CallBridge TA is also still available for optiset E adapter

CallBridge for Data offers NDISWAN miniport, CAPI 2.0, and ComPort/modem interface for data applications

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⚠ No firewall has been implemented - there could be a security risk if both a LAN port and CallBridge for Data are installed.

2.3   Telephones

2.3.1   optiPoint 500 entry

For stations at which a display is not required (e.g. lifts, entrance halls, etc.)
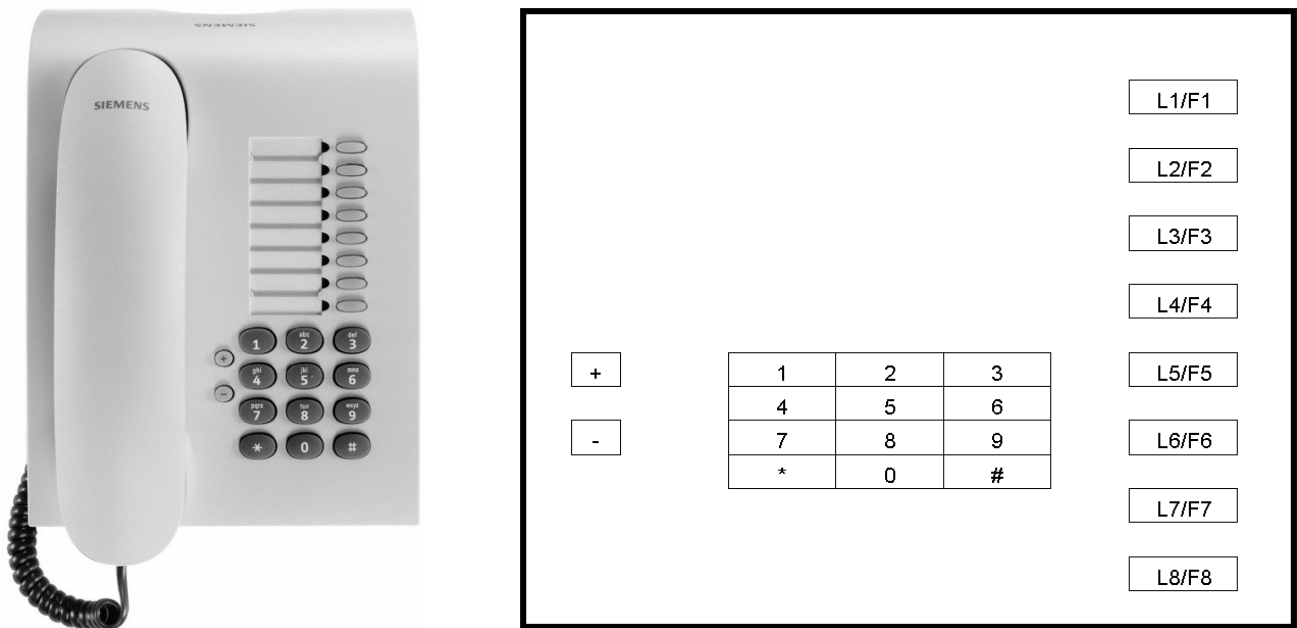
Figure 2-1   optiPoint 500 entry

Controls	Connectivity
● 8 function keys with LEDs ● 2 adjustable keys (plus/minus) for – ringer volume – ringer pitch – alerting tone – open listening (not speakerphone mode) ● Suitable for wall mounting	no adapter slots

Table 2-1   Features of optiPoint 500 entry

2.3.2   optiPoint 500 economy
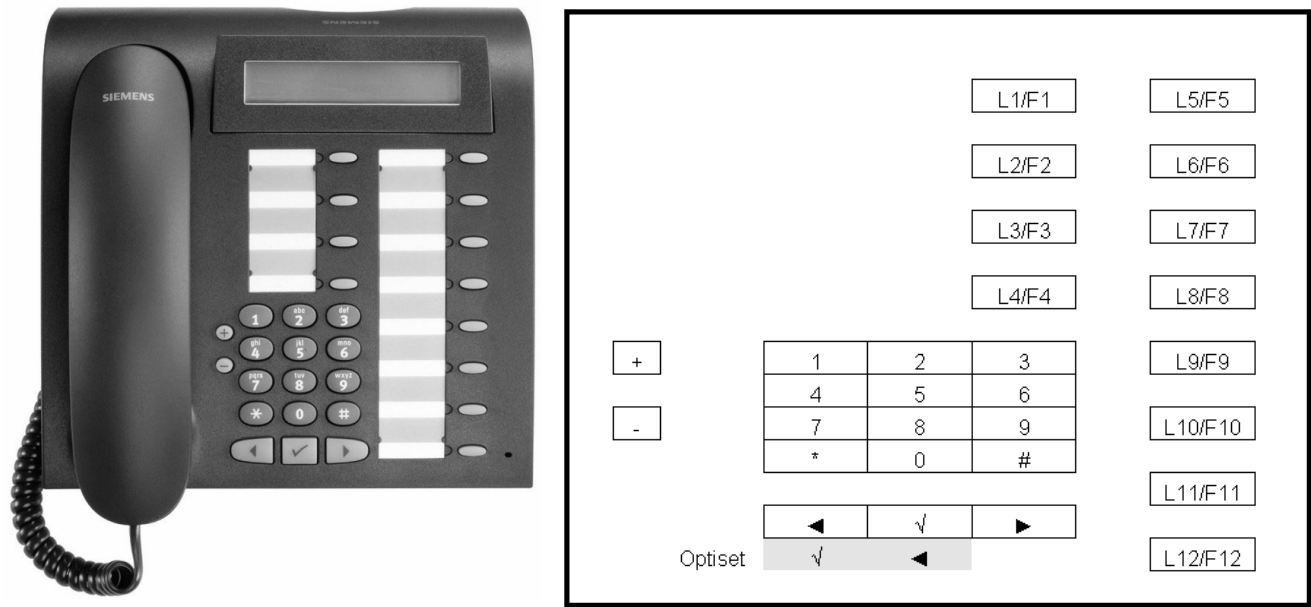
Figure 2-2   optiPoint 500 economy

Controls	Connectivity
● 12 function keys with LEDs	None
● Open listening	
● Alphanumeric LCD display with two lines and 24 characters per line, tiltable.	
● 3 dialog keys for interactive user prompting: "Yes", "Back" and "Next"	
● 2 adjustable keys (plus/minus) for	
– ringer volume,	
– ringer pitch,	
– alerting tone,	
– display contrast	
● Suitable for wall mounting	

Table 2-2   Features of optiPoint 500 economy

2.3.3 optiPoint 500 basic
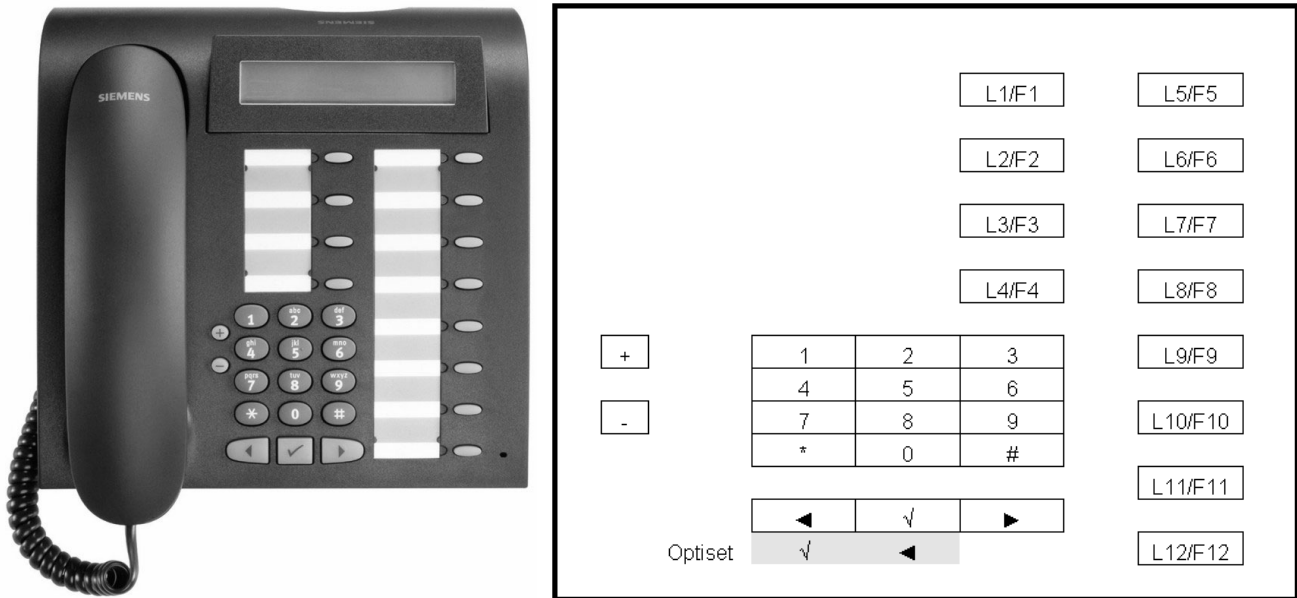
Figure 2-3   optiPoint 500 basic

Controls	Connectivity
• 12 function keys with LEDs	• USB 1.1 interface
• Open listening	• 1 adapter slot
• Tiltable alphanumeric LCD display with 2 lines and 24 characters per line.	• 1 interface for max. 2 key modules
• 3 dialog keys for interactive user prompts: "Yes", "Back" and "Continue"	– optiPoint 500 Key Module
• 2 adjustable keys (plus/minus) for	– optiPoint 500 Signature Module
– ringer volume	
– ringer pitch	
– alerting tone	
– display contrast	
• Suitable for wall mounting	

Table 2-3   Features of optiPoint 500 basic

2.3.4 optiPoint 500 standard
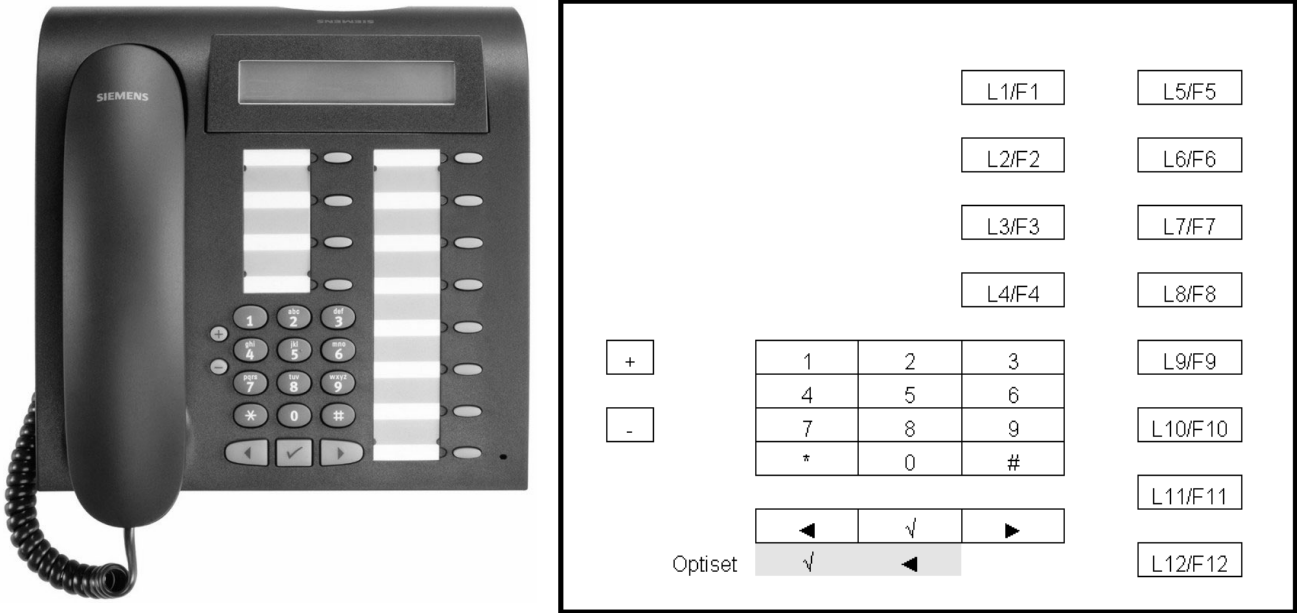
Figure 2-4   optiPoint 500 standard

Controls	**Special Features**
• 12 function keys with LEDs	• USB 1.1 interface
• Full duplex speakerphone mode with echo suppression for room adaptation	• 1 adapter slot
• Tiltable alphanumeric LCD display with 2 lines and 24 characters per line.	• 1 interface for max. 2 key modules
• 3 dialog keys for interactive user prompts: Yes, Back, and Continue	– optiPoint 500 key module
• 2 adjustable keys (plus/minus) for	– optiPoint 500 signature module
– ringer volume	
– ringer pitch	
– handsfree quality	
– alerting tone	
– display contrast	
• Suitable for wall mounting	

Table 2-4   Features of optiPoint 500 standard

2.3.5   optiPoint 500 advance
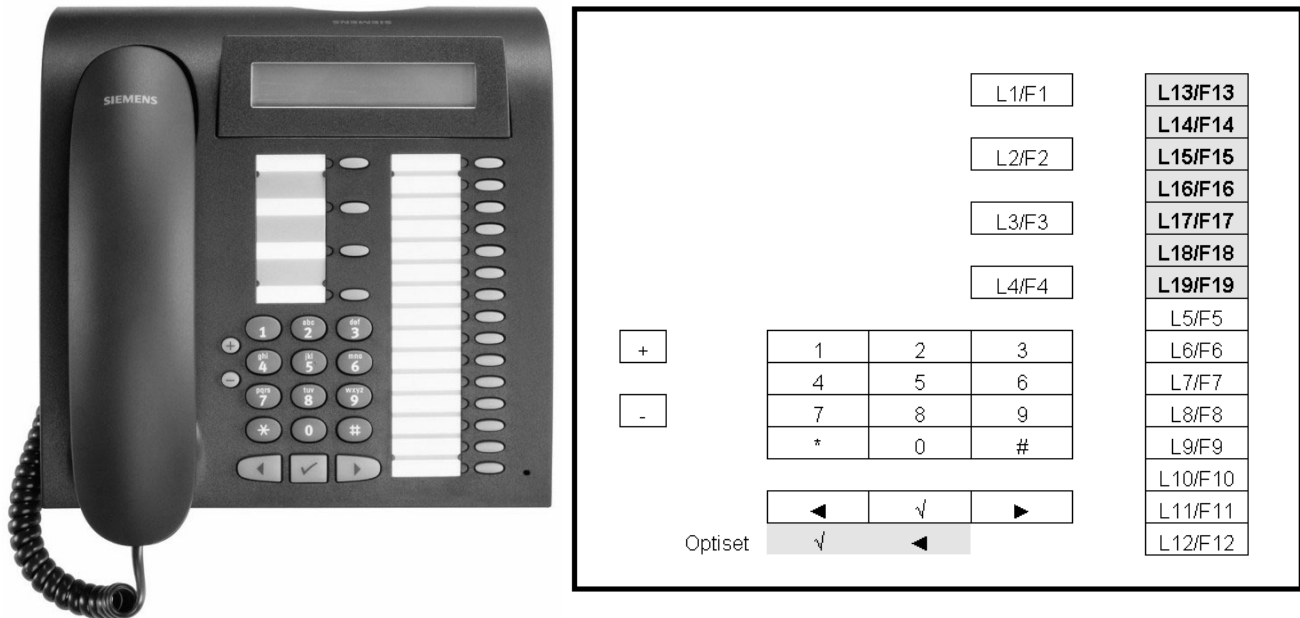
Figure 2-5   optiPoint 500 advance

Controls	Special Features
19 function keys with LEDs Full duplex speakerphone mode with echo suppression for room adaptation	• USB 1.1 interface
Tiltable alphanumeric LCD display with 2 lines and 24 characters per line. additional with background lighting, remains lit for approx. 5 s.	• 2 adapter slots • 1 headset port (121 TR9-5) • 1 interface for max. 2 key modules
3 dialog keys for interactive user prompts: Yes, Back, and Continue	– optiPoint key module
2 adjustable keys (plus/minus) for ringer volume, ringer pitch, handsfree quality, alerting tone and display contrast	– optiPoint signature module
Suitable for wall mounting	

Table 2-5   Features of optiPoint 500 advance

If optiPoint 500 advance is connected to Hicom or HiPath 3000 or AllServe 150, only 12 function keys can be configured via Hicom/HiPath.
The remaining function keys can be configured as call destination keys via the optiPoint500 advance menu.

2.4   Module Options

Adapters facilitate flexible expansion of the telephone workstation at optiPoint 500 basic, standard and advance system telephones, by means of individual add-on components.

Configuration Notes

- Connection of max. 2 modules (key modules) to the basic, standard and advance models.

- A local power supply unit may be necessary, depending on the range and number of key modules (max 2).
  Use the optiPoint 500 "Telephone Test"/"Feeding Range" service menu items to check if the power supply is sufficient.

- optiPoint 500 entry cannot be configured as the primary telephone in a primary/client configuration
  (see Section 5.5 on page 5-11).

- Whenever making changes to the configuration, disconnect the primary telephone from Hicom/HiPath. Doing so triggers a reset when the device is connected again, providing the system with the new configuration in the setup message.

- Only one headset/acoustic adapter is permitted per telephone.

2.4.1   optiPoint 500 key module

The key module on the basic, standard and advance models is used for saving call numbers and functions (e.g. callback, conference, last number redial, etc.)

It features:

● 16 function keys

● 16 LEDs for visual signaling of the activated functions and keys.

Shift key

One of the keys is assigned the shift function. 30 name destination keys can be programmed using the shift key.

Physical mounting

16 function keys

16 LEDs
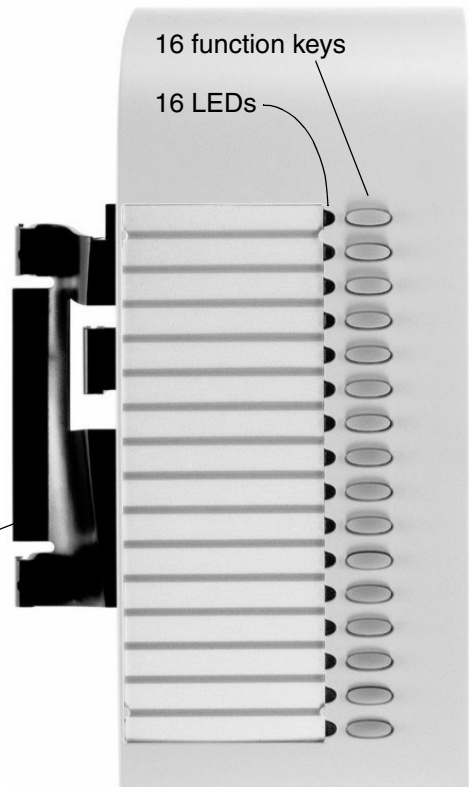
Max. 2 key modules can be connected to optiPoint 500.

2.4.2 Busy Lamp Field BLF

The BLF is a key module for optiPoint 500 and 600 that can be connected to the telephone over an 8-pin RJ45 communications port.

It can be used in the HiPath 3000/Hicom 150E/H and HiPath AllServe 150 systems and has the same functions as the existing BLF on optiset E telephones.

The BLF on the basic, standard and advance models allows phone numbers and functions to be saved (e.g. callback, conference, last number redial, etc.)

It has

● 90 function keys,

● 90 LEDs for visual signaling of the activated functions and keys.
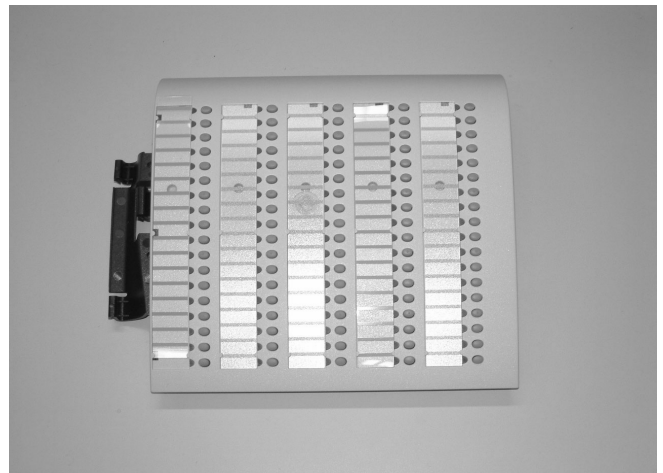
2.4.2.1 Power Supply

The BLF has its own local power supply. If you want to connect two BLFs, you need only one local power supply for them both (i.e. the power supply of the first BLF can be used for the second BLF as well).

The BLF uses the same power supply (power supply unit 2x35V) and connector as the optiPoint 500 a/b adapter (also see chapter "Accessories" --> "Mains adapter").

The output of power supply must be connected directly with the optiPoint BLF.

Figure 2-6   Power supply to BLF

> When connecting the BLF the configuration should be checked to ensure that it corresponds with the telephones/auxiliary modules which are connected..

2.4.2.2   Connection to the Terminal

The following connection configurations A - D are possible:

A

optiPoint 500
Phone

optiPoint BLF

B

optiPoint 500
Phone

optiPoint BLF

optiPoint BLF

C

optiPoint 500
Phone

optiPoint
Key Module

optiPoint BLF

D

optiPoint 500
Phone

optiPoint
Key Module

optiPoint BLF
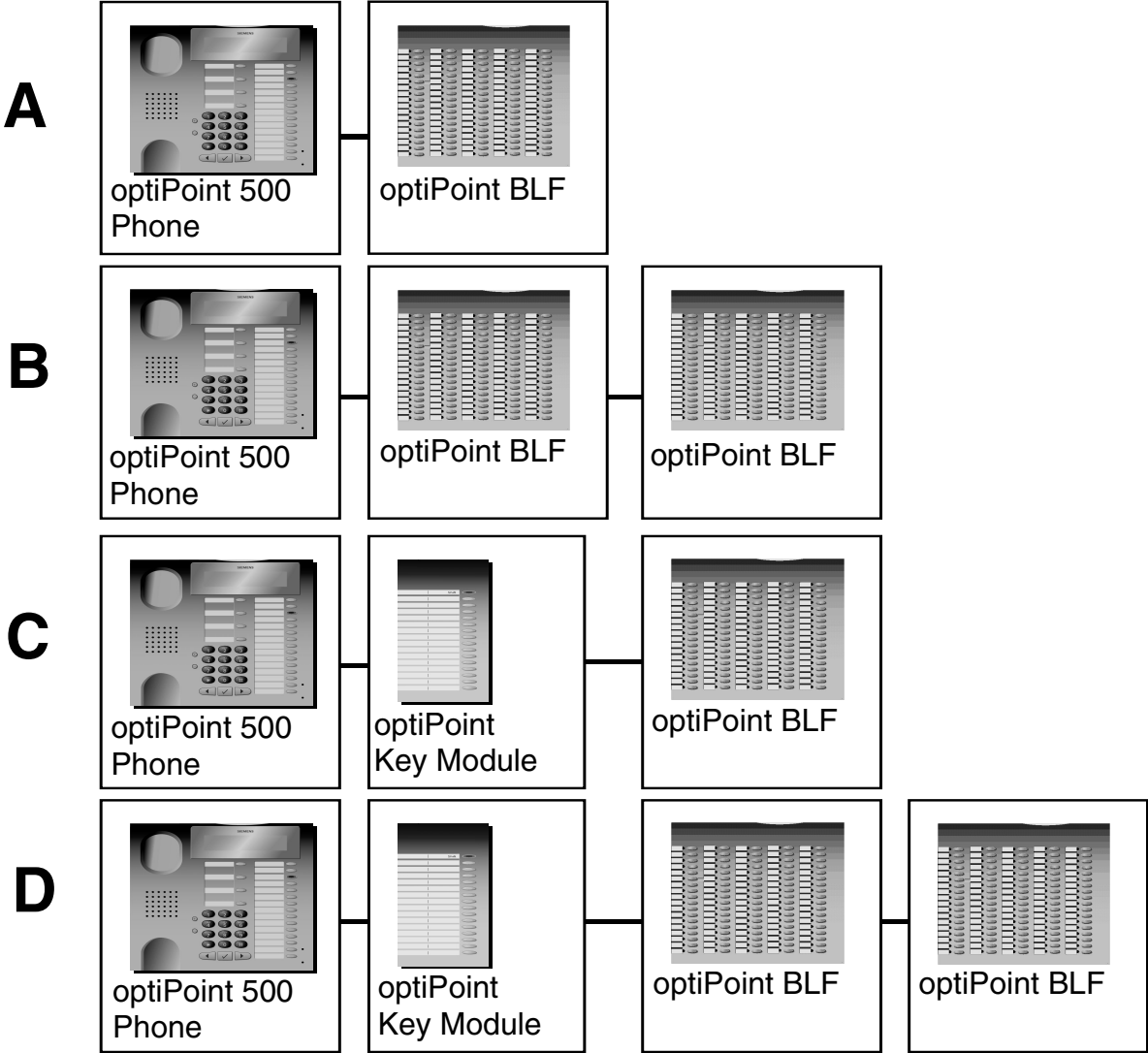
optiPoint BLF

You can also connect the BLF to the terminal first in combination C and D in connection with a key module.

> With releases lower than 3.0, it is not possible to use an optiPoint 500 advance with the connection configurations C and D.

Interface Description: MW8/8 (RJ45)

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
side car CS	SPI master out/slave in	nc	+ 3,3V	nc	DGND	SPI clock	SPI master in/ slave out

2.4.3   optiPoint 500 signature module (HiPath 4000 only)

The optiPoint 500 signature module is a chip card reader add-on device for the basic, standard and advance models.

The key module is a simple option for upgrading an existing telephone to chip card technology.

Physical mounting
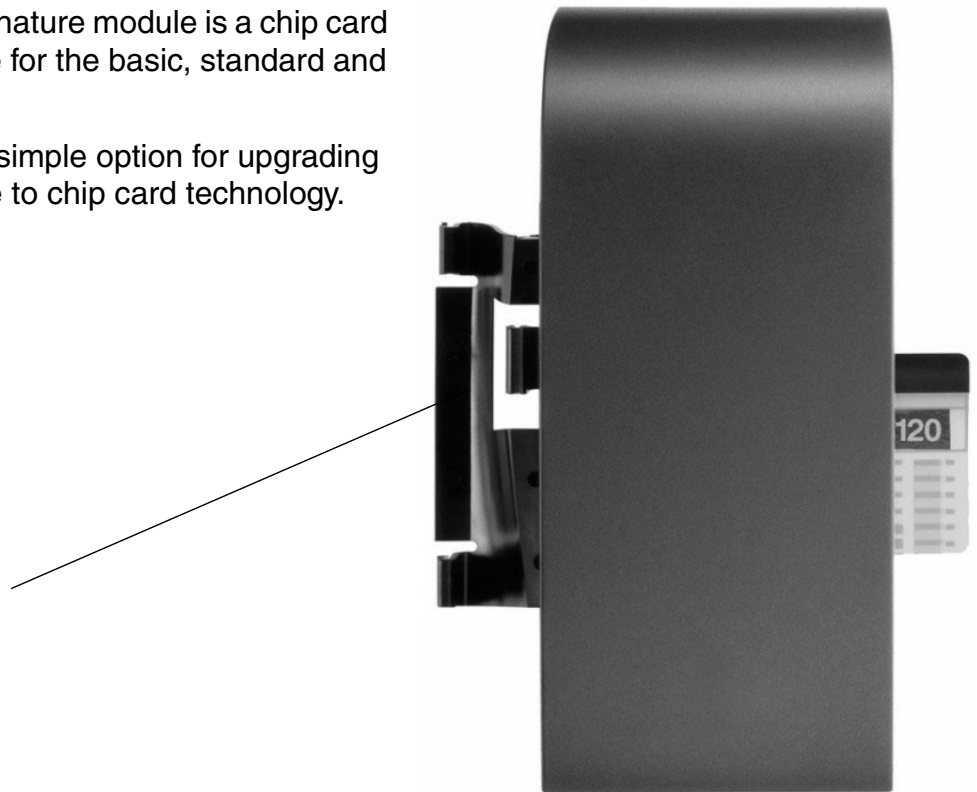
I2C Bus Memory Cards

Customized, programmable I2C cards are required for using signature modules. These can be obtained from Siemens AG: Rainer.eickholt@fthw.siemens.de (see Section 9.3)

2.5   Accessories

2.5.1   External Speaker/Desk Microphone

These parts feature magnetic shielding to protect magnetic data media and monitors as well as a device to protect against incoming radiation for electromagnetic compatibility (especially in conjunction with mobile phones).

To avoid feedback, position the desk microphone and the external speaker as far away from each other as possible.

Mute key

LED for on/off display

Desk Microphone

The desk microphone replaces the microphone that is integrated in the telephone and assists in optimizing the "speakerphone" function in poor acoustic conditions.

If the external speaker button on the telephone is pressed, an LED lights up on the microphone to show that the microphone is now ready to record.

The microphone can be switched off by pressing the mute key. Deactivation is confirmed when the LED goes out.

optiset E External Speaker

The active external speaker enhances the speaker already integrated in the telephone and improves the acoustic features and is therefore most suitable for telephone conferences.

When the external speaker is connected to the power network, an LED lights up to show that is operational. The external speaker button on the telephone activates this function.

The base volume can be adjusted in line with the given room conditions using the automatic volume control key on the front of the telephone. Volume control during a call is controlled via the volume key on the telephone.

2.5.2 optiPoint Headsets

The headset replaces the telephone handset, i.e. the user's hands are free during the call. This add-on device is particularly useful for frequent telephone users (switch operators, tele-marketing personnel).

Connecting the Headset to an 121TR9-5 Interface

The following headsets can be connected to the optiPoint acoustic adapter and the optiPoint 500 advance telephone:

Headset	Order Number	Connect to
Encore monaural	L30460-X1282-X1	optiPoint 500 advance or optiPoint 500 basic with acoustic adapter or optiPoint standard 500 with acoustic adapter
Encore binaural	L30460-X1282-X2	
Tristar	L30460-X1282-X3	
Supra	L30460-X1282-X4	
2100 Flex Boom NC Mono	L30220-F600-H184	
2100 Flex Boom NC Duo	L30220-F600-H185	
Profile monaural	L30460-X1283-X1	
Profile binaural	L30460-X1283-X2	The acoustic adapter also supports the extended cordless 121TR9-5* interface.
Duo Set	L30560-X1282-X5	

Table 2-6   Headsets

Spare parts and accessories, such as ear cushions, earpieces, clothing clips, adapter sets for glasses, fast-on clips, head clips, and extension cords are available from your Siemens consultant.

2.5.3 Local Power Supply Unit

You may need to use an optiset E local power supply unit to extend the range or operate additional options. The local power supply unit has two RJ11 jacks and is packaged with the connecting cable.

If the supply voltage exceeds 21 V, all devices are reset and any calls in progress released.

Name	Value
Line voltage	220 (230) V
AC line frequency	47-53 Hz
Max. output voltage	50 V
Min. output voltage	30 V
Max. output current	250 mA

Pin	Assignment
1	Not used
2	**-** pole
3	Tip
4	Ring
5	**+** pole
6	Not used
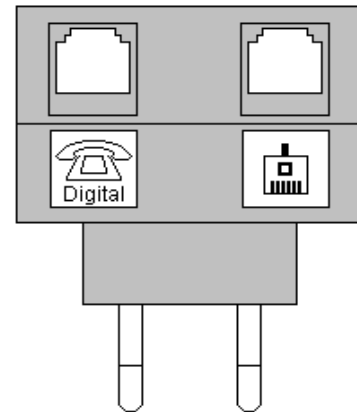
Primary/Client Configuration (see Section 5.5 on page 5-11)

The local power supply can be looped into the connecting line of the primary or client telephone.

If a local power supply is connected in front of the client telephone, the phone adapter detects this local power supply
(via pins 2+5) and turns off the power to the client telephone.
In this case, only the signals are received via the $U_{P0/E}$ interface.

If the power to the client fails, the phone adapter reactivates the power supply.

If the local power supply unit is connected in front of a primary telephone, the supplementary power is fed via a diode. Because the optiset E local power supply unit has a higher voltage, it supplies the power to the equipment.

2.5.4   Accessory Pack

Each telephone/key module is supplied with:

- general user information

- sourcing options for user/installation instructions (a printed version of the user instructions can be ordered and is subject to charges).

- Safety information

- two emergency call number labels

- a label strip (neutral) for each model.

For each system order/upgrade, a CD-ROM for is supplied to the administrator via the PC network for provision to the user (available in 7 languages):

- electronic user instructions, brief instruction

- key labeling tool for the user (Word)

- installation instructions for all options

- additional system-specific instructions (optiset E, Cordless E, etc.)

Further CDs can be ordered at a charge.

Up-to-date documents (CD contents) on the Internet: www.hipath.com

2.5.5   Online Key Labeling Tool

This tool is used for labeling the optiPoint 500 telephone keys. It offers:

- key labeling with user-specified text or a selection from the features lists

- printing of a PDF file on company paper with cutting marks or on pre-cut key labeling sheets (ordered via Witten).

optiPoint key labeling sheet order units include:

- 40 pre-cut sheets for basic/standard/advance (for every 5 telephones)

- 10 pre-cut sheets for entry (for every 15 telephones)

Order Number A31003-H8400-B990-*-6Z19

2.5.6   Wall Mounting

Wall brackets can be used for all optiPoint 500 telephones, apart from with add-on devices, if a USB 1.1 interface or an adapter is plugged in.

2.6 Technical Data

2.6.1 Asset ID

All telephones have a 32-bit asset ID, which is an electronically encoded serial number that is set in the factory during final inspection. This number, combined with the phone ID (telephone type), clearly identifies the telephone.

The asset ID is stored in four bytes, each composed of eight bits.

Significance of the bit field						
Year	Week	Day	Design	Factory	Test bay	Serial no.
4 bits	6 bits	3 bits	3 bits	2 bits	2 bits	12 bits
32 MSB[*]						LSB[**] 1

  * MSB = most significant bit
  ** LSB = least significant bit

2.6.2 Environmental Conditions

Environmental conditions apply to all optiPoint telephones, adapters and key modules:

	Ambient temperature	**Relative humidity**
Operation	5°C to 40°C	5% to 85%
Transport (short-term)	-40°C to +70°C	95% at 45°C
Storage	-5°C to +45°C	5% to 95%

Table 2-7   Environmental conditions

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2.6.3   Ranges

The transmission range with a 0.6 mm PVC cable is at least 1,000 meters (100 meters from primary to client device).

The feeding range can be checked via the optiPoint menu item "Service", "Line Test". This test activates all LEDs for 3 or 5 seconds (depending on the system type), turns on the ringer for 1 second, and blanks the display.

Detailed range data for the individual cable types can be found in the ICN TI Hicom 150 E/ Hicom 300 E and in the ICCS Manual, Volume 2 (order no.: A30951-V6200-*-7620/Lieferzentrum Fürth).

2.6.4 $U_{P0/E}$ Interface

The $U_{P0/E}$ interface is a vendor-specific ISDN interface that uses the CorNet TS protocol and a powered two-wire interface for connecting the optiPoint500 telephones.

$U_{P0/E}$ interface	
Data transmission based on time-division multiplexing with AMI codes	250 µs frame
Bit clock	384 kHz
Net bit rate	144 kbps
Aggregate bit rate	152 kbps
Center frequency	192 kHz
Characteristic impedance at 192 kHz	100 ohms

Table 2-8 $U_{P0/E}$ interfaces: technical data

2.6.5   USB 1.1 Interface

optiPoint 500 telephones are upgraded with a USB interface (with the exception of optiPoint 500 entry). This is the basis for:

- PC-supported telephony (TAPI)
  CallBridge TU and CallBridge for data are TAPI Service Providers for CTI solutions. Telephones can communicate with the PC using these.

- Data transmission via the PC's USB interface using CAPI (e.g. direct Internet access, fax transmission, e-mail, etc.). When the CAPI software is installed, PCs gain direct access to the Internet via the USB interface, without requiring an additional adapter. This software is subject to charges.

TAPI and CAPI can be used in parallel (e.g. you can receive a large e-mail or download data, etc. while setting up calls via a CTI application).

3 Startup

3.1 Unpacking the Box

Before unpacking the telephone, check the box to see if there is any visible damage caused during transport. Then open the box and check its contents to make sure they are complete and undamaged.

3.2 Setting Up the Telephone

Due to the many different kinds of varnishes and polishes used on furniture, the possibility of housing components being damaged or leaving unsightly marks cannot be completely ruled out. Siemens does not assume any liability for any damage associated with where the telephone set is mounted.

When setting up the telephones, make sure that they are not exposed to direct sunlight and are not in the direct vicinity of a heat source.

3.3 Keypad and Control Panel
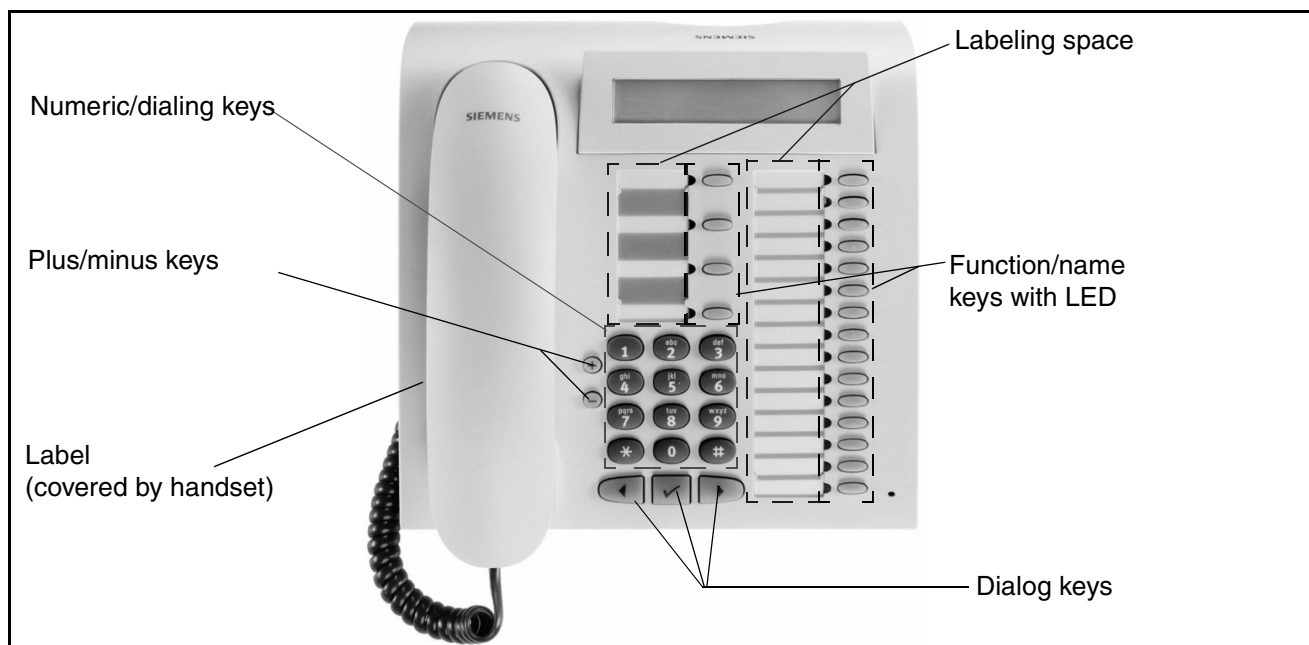
Figure 3-1   Keypad and control panel (optiPoint 500 standard)

Keypad Polling

The software polling cycle time is 32 ms. After determining that a key was pressed, the telephone does not poll any other keys until the user releases the pressed key.

Pressing the Plus/Minus Key Simultaneously

A specific feature can be configured in Hicom/HiPath (e.g. volume control) when the plus and minus keys are pressed at the same time.

3.4 Date and Time Indicator

All optiPoint 500 telephones with displays (economy, basic, standard, advance) have a date/time indicator.
As indicated in CorNet-TS, the telephone only maintains the clock, while Hicom/HiPath are responsible for setting the time, activating the telephone to display the time, and controlling the call duration timer.

3.5   Ports on the Underside of the Telephone

> ⚠️ When changing or expanding an existing configuration, first unplug the host, connect the extension, and then plug the host back in.

USB

RJ45 jack for

● key modules or

● signature modules

RJ11 Hicom jacks

Above: RJ8 headset (advance only)

Below: RJ8 handset

Adapter slots

● 1 x basic and standard
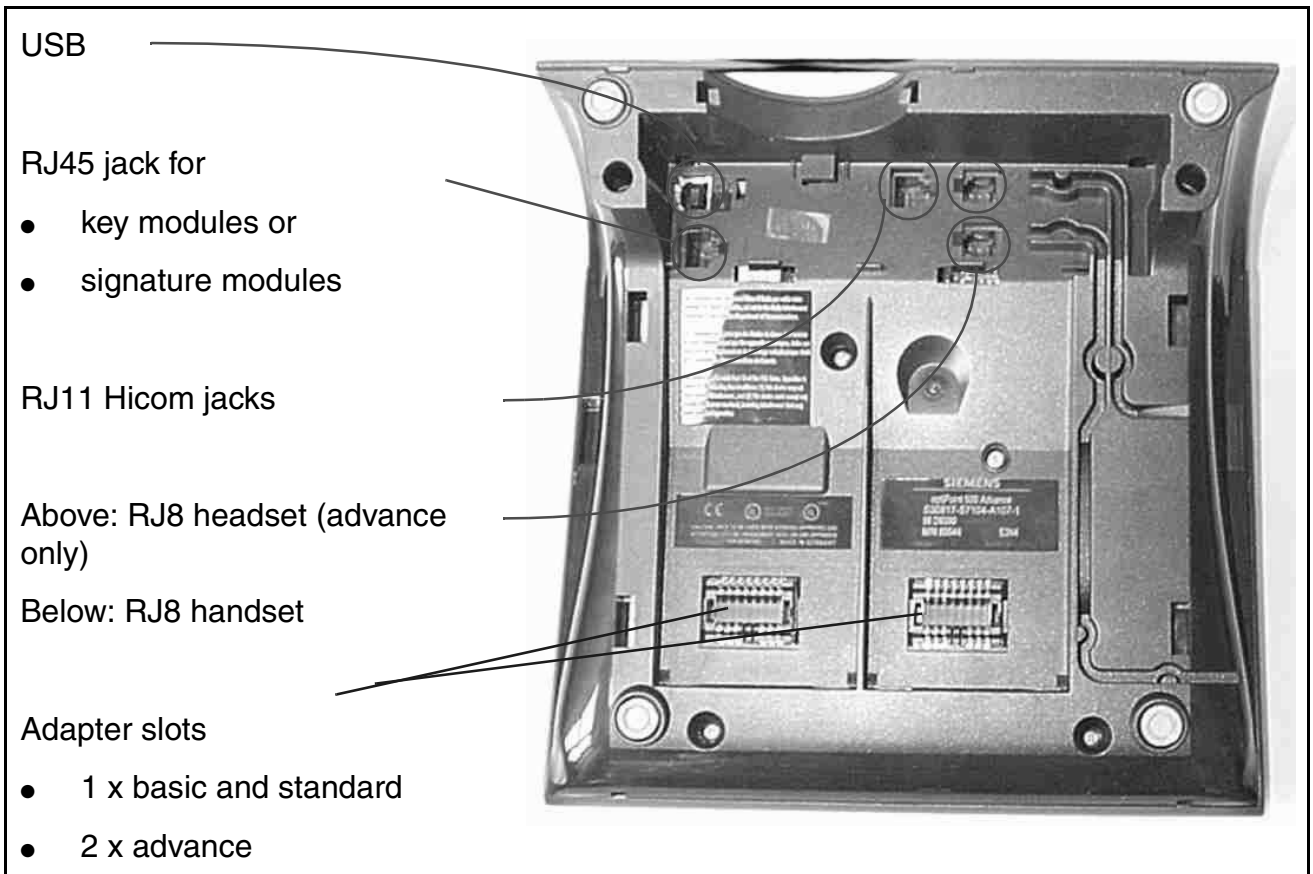
● 2 x advance

Figure 3-2   Jacks on the underside of the telephone (optiPoint 500 advance)

3.6 Telephone Tests

Accessing the Telephone Test

The telephone test is started by pressing the "service key" and entering the "code number".

- Tests run for approx. 10 s. These are followed by a timeout.

- Tests can be stopped at any time by pressing the pound key ▦ .

Code number	Menu text	Action after pressing OK ☑
91	LED	Start the LED test
92	Screen	Start the screen tests
93	Keys	Start the key test
94	Audio	Go to the audio test/submenu
941	Speaker	Test the speaker volume (7 levels)
942	Handset	Test the handset volume (7 levels)
943	Ringer volume	Change the ringer volume (7 levels)
944	Ringer pitch	Change the ringer pitch (7 levels)
945	Alerting tone	Change the volume of the alerting tone (7 levels)
946	Speakerphone mode	Handsfree function (3 levels): normal, loud, noisy room
940	Back	Return to the audio test
95	Asset ID	Display the asset ID
96	Software version	Display the telephone SW version
97	Feeding range	Start the feeding range test
90	Back	Return to the telephone test

Table 3-1   Telephone test for HiPath 4000/Hicom 300 H

optiPoint 500 Models with Display (economy, basic, standard and advance)

- You can browse and display individual tests in the Service menu.

- Display individual call numbers

- Activate LEDs and calls.

- Display showing if power supply is sufficient

  – if sufficient power is being supplied, a light grey pixel pattern is visible

–   if no power is being supplied, the pattern is not discernible in the display window.

Test Function Not Working

If the test function does not work, you may need to connect an additional power supply unit to the telephone.
If the date and time do not appear on the screen after startup, either the telephone or the line is defective.

HiPath 4000/Hicom 300H

optiPoint 500 telephones on Hicom 300 H are recognized as optiset E IDs.

optiPoint 500 telephone	Generation/recognition by Hicom 300 H
optiPoint 500 entry	--> optiset E basic
optiPoint 500 economy	--> optiset E advance
optiPoint 500 basic	--> optiset E advance plus/comfort
optiPoint 500 standard	--> optiset E advance plus/comfort
optiPoint 500 advance	--> optiset E advance plus/comfort + optiset E key module

Only HiPath 4000 V1.0 and later recognize the optiPoint 500 IDs.

HiPath 3000/Hicom 150 H

The location of the Service key and the code assignments can be freely programmed in Hicom 150 H.

optiPoint 500 telephones are not recognized automatically by HiPath 3000 V3.0/V3.0 and earlier and Hicom 150 H; instead they are treated like optiset E telephones. optiPoint 500 advance telephones are not released for sale on HiPath 3000 Version 3.0 and earlier. Only HiPath 3000 V3.0 and later fully support the optiPoint 500 IDs.

optiPoint 500 telephone	Generation/recognition by HiPath 3000/Hicom 150 H and HiPath 3000 Manager E/Hicom Assistant E Office
optiPoint 500 entry	--> optiset E basic
optiPoint 500 economy	--> optiset E advance
optiPoint 500 basic	--> optiset E advance plus/comfort
optiPoint 500 standard	--> optiset E advance plus/comfort
optiPoint 500 advance	--> optiset E advance plus/comfort + optiset E key module

Because the optiPoint 500 advance has more function keys (4 + 15) than all optiset E telephones (max. 4 + 8), the system generates an optiset E advance plus/comfort with optiset E key module for the optiPoint 500 advance. This combination is also recognized by HiPath 3000 Manager E/Hicom Assistant E Office.

The 4 + 8 function keys of the optiset E advance plus/comfort and the first 7 keys of the optiset E key module are used for programming the 4 + 15 function keys of the optiPoint 500 advance.

3.7 Block Diagrams
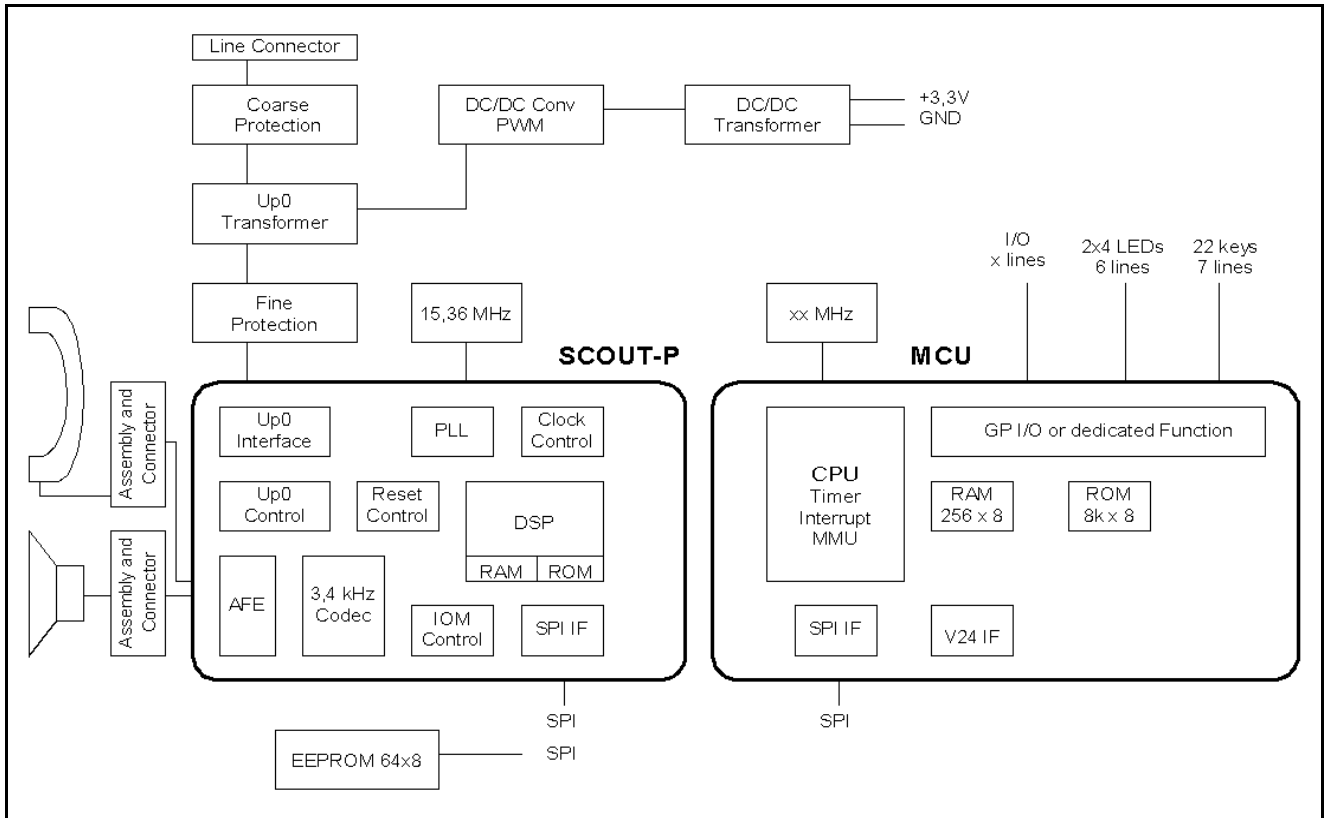
Figure 3-3   optiPoint 500 entry, economy block diagram
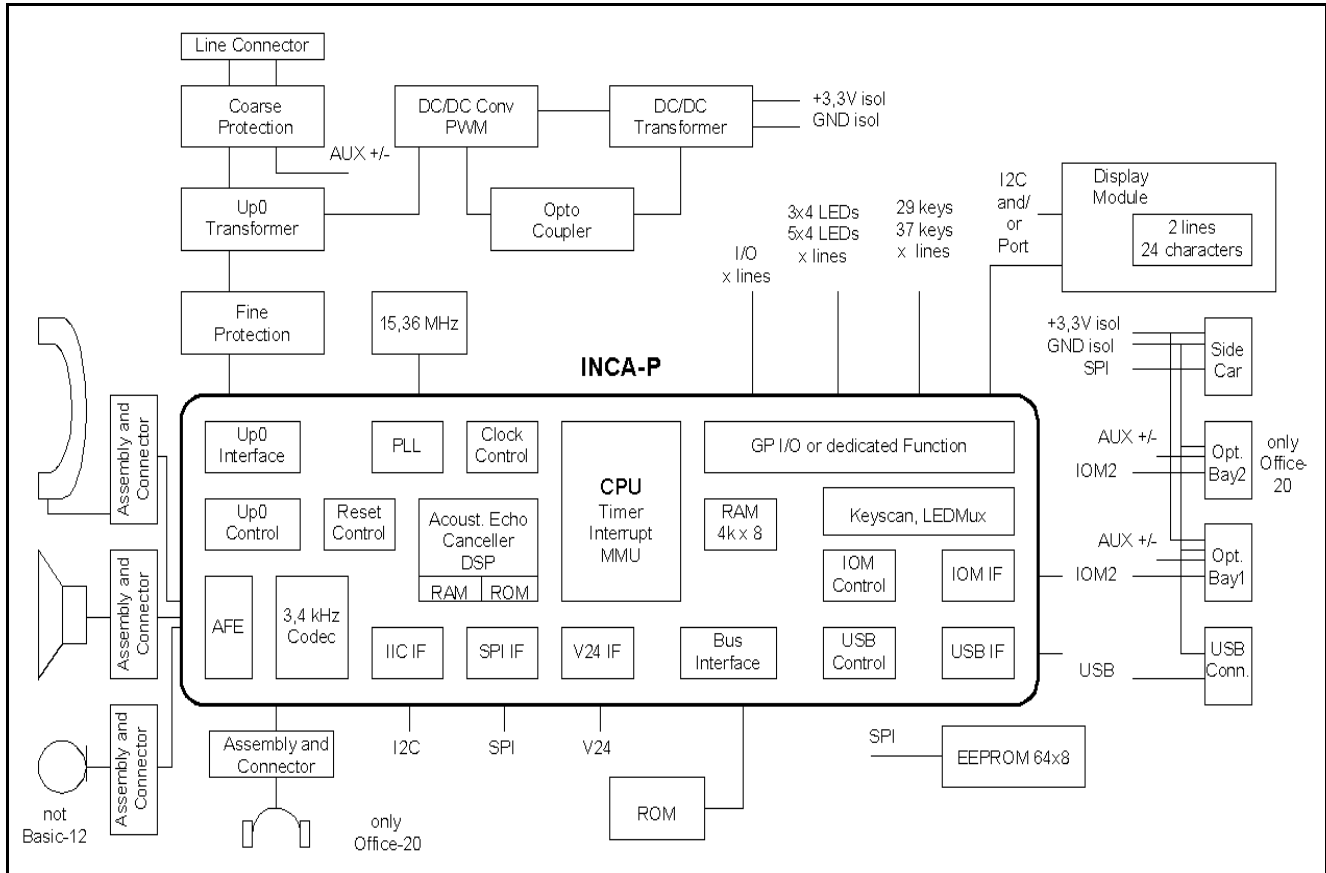
Figure 3-4   optiPoint 500 basic, standard and advance block diagram

4 Private Network Termination Units
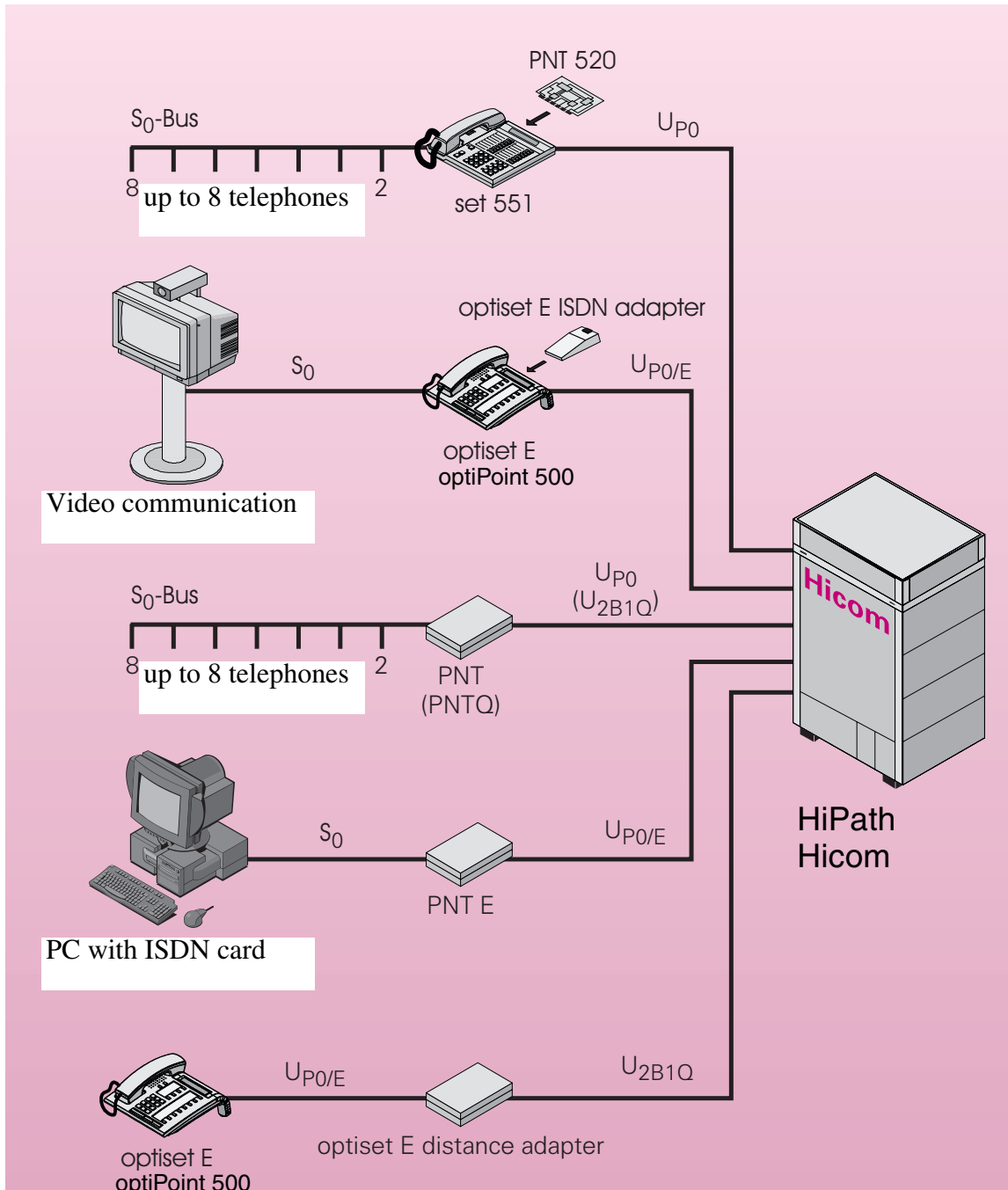
Figure 4-1   Private network termination units

Private network termination units convert the two-wire $U_{P0}/U_{P0/E}$ and U_{2B1Q} subscriber interfaces of the HiPath system to the user's four-wire S_0 interface.

4.1   PNT Private Network Termination

PNT converts the two-wire U_{P0} interface to the four-wire S_0 interface and extends the range. This gives you the advantages of the S_0 and S_0 bus interfaces at great distances from the Hicom system (connecting up to eight telephones and using fewer cables and system ports). The desktop model can also be mounted on the wall. Power is supplied by an optiset E local power supply unit.

4.2   PNT E Private Network Termination

The PNT E converts the two-wire $U_{P0/E}$ interface to the S_0 interface to connect up to two S_0 terminals (such as a PC and fax) to Hicom.
A local power supply is available for the PNT E if the connected devices need to receive power from the S_0 interface.

4.3   PNT Q Private Network Termination

PNT Q converts the two-wire U_{2B1Q} interface to the four-wire S_0 interface and extends the range. This gives you the advantages of the S_0 and S_0 bus interfaces at great distances from the Hicom system (connecting up to eight telephones and using fewer cables and system ports).

4.4   Distance Adapter (UCON S and M) at Hicom 300/300 E and HiPath 4000

Distance adapters increase the optiPoint 500 telephone range from 1,000 m to a total of 8,000 m, depending on the cable type. The range between the optiPoint 500 distance adapter and telephone is limited to 100 m (depending on the cable type and diameter).
To connect this adapter, an SLMQ line card (U_{2B1Q} interface, 16 ports) with LAP-S and CorNet-TS must be provided in Hicom 300/300 E.
Power is supplied to the distance adapter via a local power supply unit. An 8-pin RJ 45 plug is used as the mains power supply. This is the same as the plug used for PNT.
The stacked UCON S or M housing is suitable for desktop installation or mounting on the wall.

Distance Adapter S (single) - UCON S

UCON S has a 6-pin RJ 11 entry and exit port. It serves as the connection between an optiPoint 500 telephone and its options via the U_{2B1Q} interface (2-wire).

Distance Adapter M (multiple) - UCON M

UCON M is available via four 6-pin RJ 11 entry (4x U_{2B1Q}) and exit interfaces (4x $U_{P0/E}$). This adapter is used for connecting four telephones and their options.

5 Option Adapters and Ports

The optiPoint 500 adapter concept facilitates the flexible extension of the optiPoint 500 basic, standard and advance system telephones.

Comparison of optiset E Adapters and optiPoint Option Adapters

Optiset E — optiPoint 500

Optiset E	optiPoint 500
phone adapter	phone adapter**
analog adapter	analog adapter**
data adapter	USB built-in
control adapter	
ISDN adapter	ISDN adapter*
contact adapter	acoustic adapter**
headset adapter	
acoustic adapter	
headset plus adapter	recorder adapter*

03/02
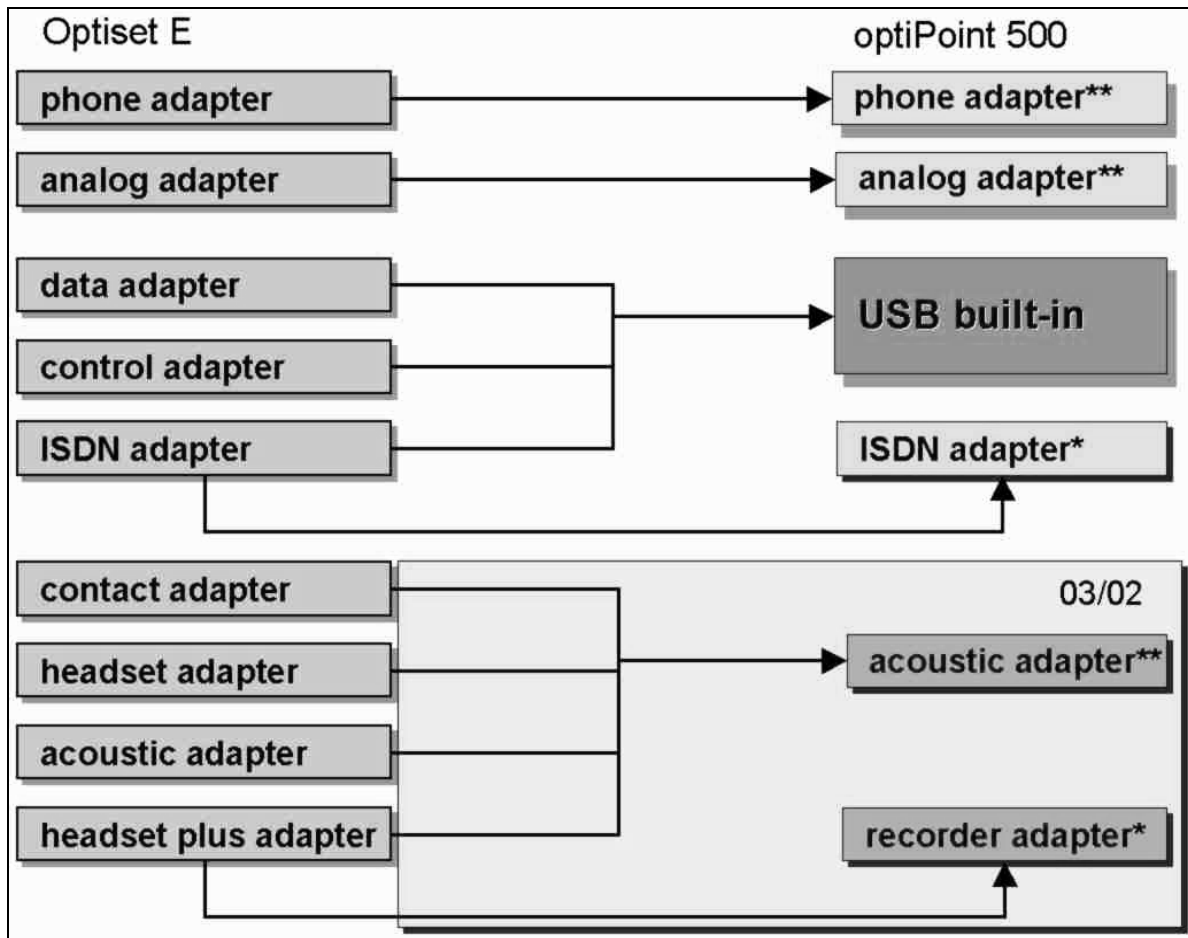
 * Local power supply unit recommended
 ** Local power supply unit required

Option Adapters and Ports

Configuration Notes

● In large configurations, it may be necessary to use local power supply units, depending on the power consumption.

● Phone and analog adapters cannot be used together.

● Phone adapters, ISDN adapters, and analog adapters can only be connected to the host.

● optiPoint 500 entry cannot be configured as the host in a host/client configuration in Hicom 150/HiPath 3000 (including ISDN).

● Whenever making changes to the configuration, disconnect the host telephone from Hicom/HiPath. Doing so triggers a reset when the adapter is connected again, providing the system with the new configuration in the setup message.

● A powered telephone can be connected to the ISDN adapter. When connecting a terminal that does not have a separate power supply, an additional power supply unit is required.

● By default, the following are not possible in conjunction with a distance adapter (UCON S/UCON M) in a Hicom 300 or Hicom 300E system:

    – client configurations

    – configurations with analog adapters and ISDN adapters.

● Only one headset/acoustic adapter is permitted per telephone.

● USB CAPI can only be connected to the host.

5.1   Adapter Slots

⚠	When changing or expanding an existing configuration, first unplug the host, connect the extension, and then plug the host back in.

Adapter slots

● 1 x basic and standard
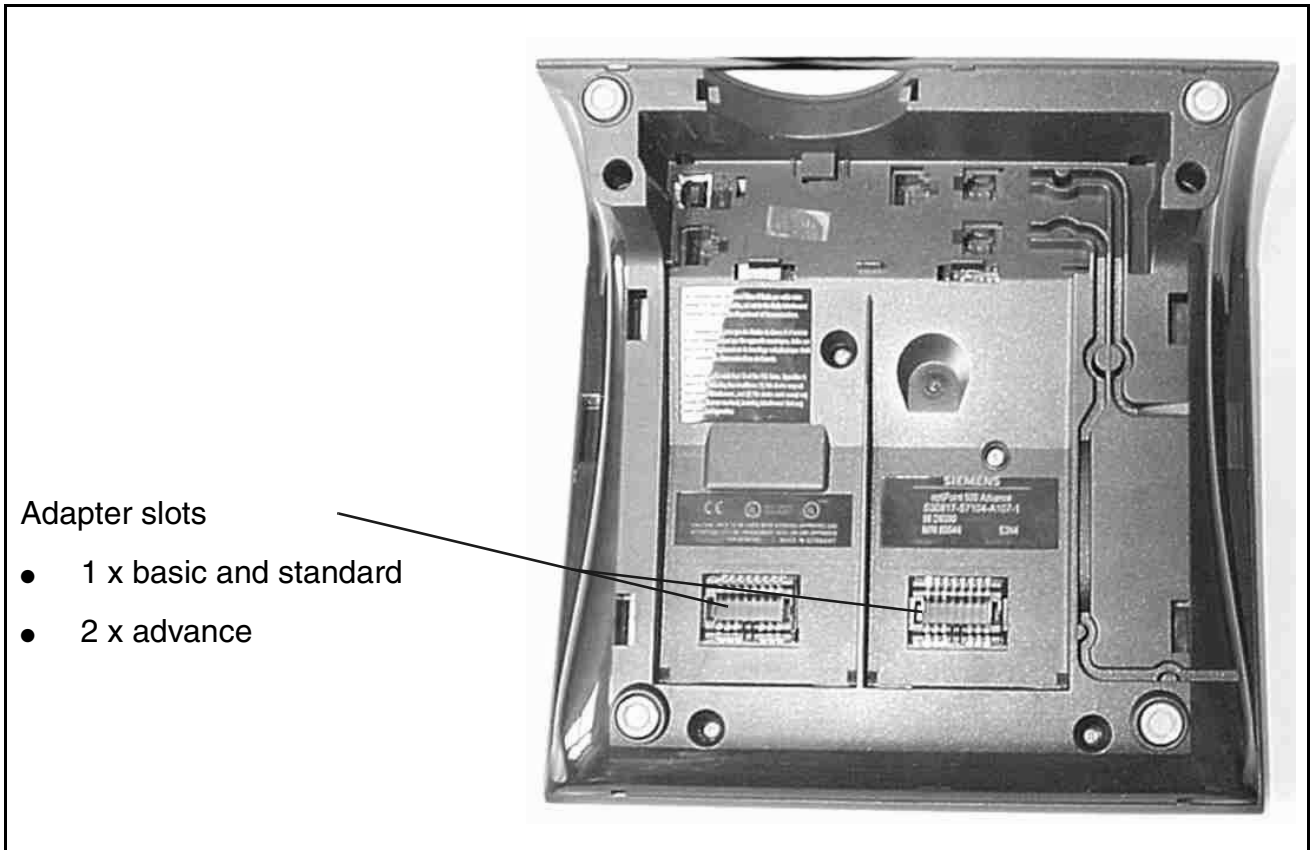
● 2 x advance

Figure 5-1   Jacks on the underside of the telephone (optiPoint 500 advance)

You can plug adapters into slots on the underside of the telephones.

5.2   optiPoint 500 acoustic adapter

A local power supply unit is required when using the acoustic adapter.

You can connect the following to this adapter:

- External speakers and desk microphone over Y cable,

- Cord-connected headset (121 TR9-5) or

- Cordless headset
  (121 TR 9-5*) with call acceptance/cleardown function from mobile units,

- Floating contact
  to busy display/door opener and secondary bell/visual paging with own power supply.

It is intended for use with the following systems:

	basic	standard	advance
Hicom150 E/150 H	●	●	
HiPath AllServe 150	●	●	
HiPath 3000	●	●	●
Hicom 300 H/300 E	●	●	●
HiPath 4000	●	●	●

Note on the advance Model

This model has an integrated headset port on the underside of the device.

Notes on the acoustic adapter

- When using an external microphone and an external speaker, the internal components are switched off in speakerphone mode (sense lead).

- The type of telephone determines the handsfree operation. Microphones which are connected to the acoustic Adapter will not be supported by optiPoint 500 basic. Except for call signaling, external devices have priority over internal devices.

- In the mute audio function, the internal microphone, the transmitter insets, and a microphone connected to the acoustic adapter are switched to mute.

- Ringing, alerting, and key tones are switched to the basic speaker (and not to the external speaker port).

- You can use the volume keys on the telephone to adjust the volume level of both the internal and external speakers.
  You can also use the volume control on the external amplifier to adjust the volume of the external speaker.

Y cable MW8/8

for connecting speaker and microphone

1 2 3 4 5 6 7 8

RJ45

Floating contact (MW6/6)

Headset MW8/8
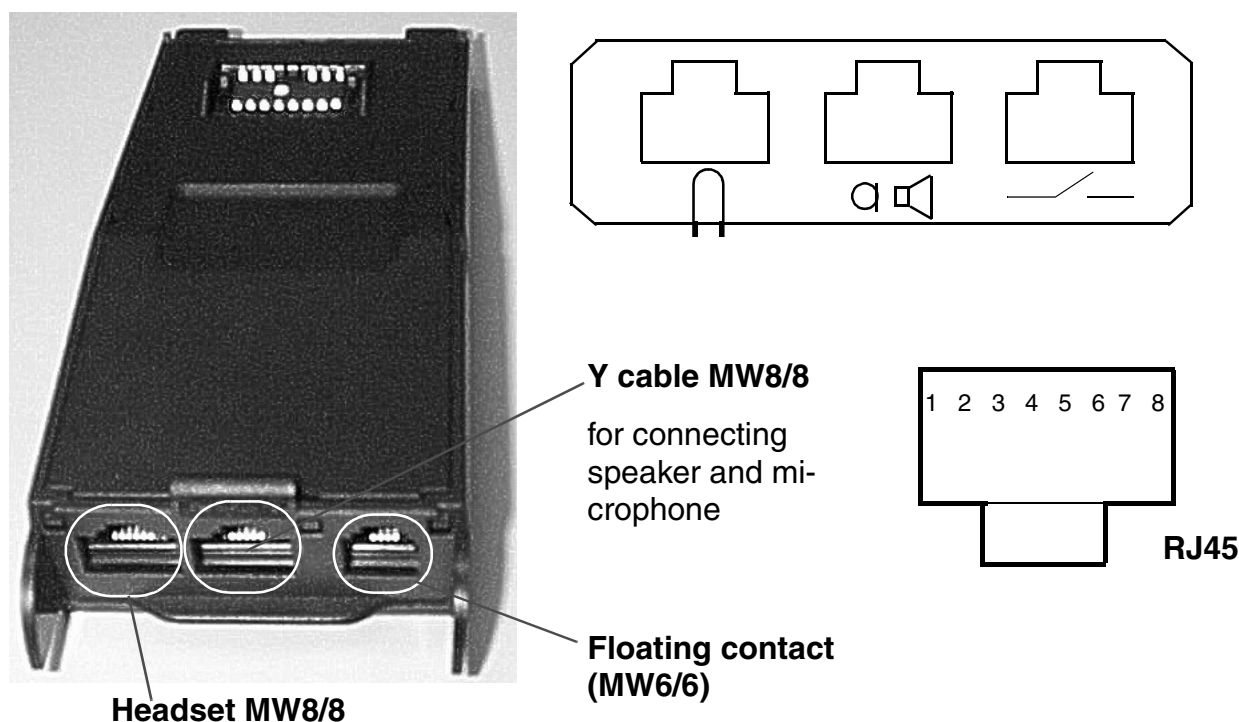
Pin assignments, Desk Microphone and External Speaker: MW 8/8

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
+U	GND	NF	Sens	LS_SENS	LSP	NC	DGND

External Speaker:

Internal resistance:	0 ohms; 10 μF
Level (with PCM -20dBm):	-4.8 dBm (at volume level 8; 0.775 V = 0 dBm)
Sense lead to GND:	Int. speaker deactivated, active for ringer only

Desk Microphone:

Input level -50 dBm:	-12 dBm PCM signal
Input resistance:	150k parallel with 220 nF in series with 36K
Sense lead to GND:	Internal microphone deactivated

Pin assignment Headset: MW 8/8

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
TX	GND	TX_AUD	RX_AUD	RX_AUD	TX_AUD	-	RX_BUS

The electrical values comply with FTZ 121TR9-5.

Pin assignment Floating contact: MW6/6

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
NA	ACT1	RING	RING	ACT2	NA

5.2.1   Electrical Requirements of the Headset

- The electrical values comply with FTZ 121TR9-5

- Audio transmission from one headset is routed to the other headset (recommended by Plantronics).

- The way in which this option interacts with the telephone and the CS is described by the CorNet-TS layer 3 specification for Symphony.
  The CS can detect a headset after it has been plugged into this option.

- **Microphone (Elektret interface):**

Max. current:	$\leq 400\ \mu A$
Supply voltage:	5 V$\pm$10%
Series resistance:	5 k$\Omega\pm$10%

- **Audio converter:**

Impedance:	150 $\Omega\pm$10%
EBD:	13 dB$\pm$2.5dB

5.2.2   Floating Contacts

In addition, the acoustic adapter also provides two floating contacts. This allows the control of a busy lamp and a secondary bell.

1. First contact (PIN 2 and 3)

    This signals the active telephone states:

    ●   Handset offhook/trunk key activated

    ●   Speaker on/headset active

    An external lamp can be used to indicate these states. When the lamp lights up, one of the above-mentioned states is active. However you cannot provide a separate lamp for each of this states.

    The lamp receives power from an external source rather than from the telephone itself. However, to prevent this lamp from causing irreversible damage to the optiset telephone or optiset contact adapter, the power supply must range from 24 volts to a maximum of 60 volts, and the lamp itself should not exceed 5 watts. (You can, of course, connect a relay instead of the lamp, taking care not to exceed the connection values mentioned above).

2. Second contact (PIN 4 and 5)

    This provides the ring input status.

    This contact can provide an external signaling mechanism when the telephone rings. This is important when connecting a secondary bell or similar device. Once again, observe the electrical connection values for this connector as well (24 V - 60 V, 5 W; do not connect an inductive load without surge protection). However, you can also connect a relay instead of the lamp, with this relay then controlling the 220 V secondary bell.

> The "busy display" and "door opener" functions cannot take place simultaneously. The "door opener" function is currently only applicable for HiPath 4000 (later also for HiPath 3000 V4.0).

Contact Load

Both contacts can carry the following load:

5 W with 24 V a.c. or 60 V d.c.

5.3   optiPoint 500 Analog Adapters

This type of adapter is used for connecting an analog terminal (e.g. telephone, group 3 fax, modem, cordless telephone) to the system telephone.

> A local power supply unit is required when using an analog adapter.
> Only DTMF terminals can be connected to an analog adapter
> (no dial pulsing).

MW6/6

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
NC	NC	TIP +	RING	NC	NC

6 5 4 3 2 1   **RJ11**
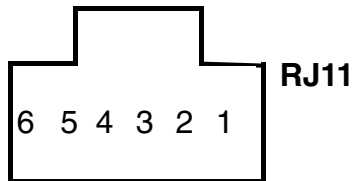
Functions

●   The connected analog equipment can use this interface to send and receive calls independently of the voice call status of the basic device, provided that a B channel is available.

●   During adapter initialization, country-specific information (such as impedance and flash signal duration) is loaded.

●   You can connect an external ringer (secondary bell for the telephone) via TA a/b.
     The AC bell, which can be connected instead of an analog terminal, is treated like a "physical device" (source) and receives signals from the system.
     Administration is in MULAP form.

Analog Interface

- Standard analog interface for

    – analog telephones

    – cordless telephones

    – fax machines or other

    – analog equipment with an analog interface

- Supply current 30 mA

- Busy signal if both B-channel lines are busy

- Ring sequence: 2.2

- Supports only DTMF with flash

- No ground signaling allowed

- MW 6/4 (RJ11/8) connector

The adapter does not support the following functions:

- Voice mail servers with analog interface

- Message waiting LED

- Dictation equipment

- Speaker

- Announcement device (such as start/stop)

- Screen keys (PC connected to RS232) and

- A, B, C, D keys on the enhanced telephone.

- Telephone active: Handset off-hook, speakerphone mode, open listening, headset active

- Ringer on: Contact opens and closes with the ring cadence

5.4 optiPoint 500 ISDN Adapter

The ISDN adapter converts a $U_{P0} => S_0$.

This permits the connection of default ISDN terminals with their own power supply unit (e.g. group 4 fax machines, ISDN data terminals, ISDN telephones as well as video communication equipment, such as a video set or video kit for example).

MW8/8

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
NC	NC	SR1	SX1	SX2	SR2	NC	NC

RJ45

8 7 6 5 4 3 2 1
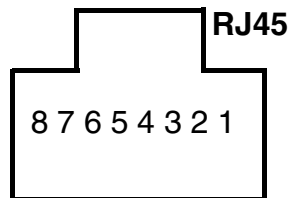
Functions

- ISDN network terminating point with support for 2B+D channels.

- MW 8/8 connector according to CCITT Recommendation I.430

- Pin assignment in accordance with ISO 8877

- Support for point-to-point and passive bus connections

- Wired for short passive bus configurations

- Cable lengths

  - cables can be a maximum of 100 meters long with a cable impedance of 75 ohms.

  - They can be up to 200 meters with a cable impedance of 150 ohms according to CCITT Recommendation I.430

- NT terminating resistors are integrated into the ISDN adapter.
  Additional terminating resistors come with the unit.

5.5 optiPoint 500 Phone Adapter (Host/Client)

The phone adapter facilitates the connection of a second $U_{P0/E}$ terminal with its own power supply unit (client) for using the second B-channel.

The connected client phone can send and receive calls independently of the host telephone's connection status.

> If you need to extend the range or operate additional options a local power supply unit is required (see chapter „Local Power Supply Unit".

MW6/6

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
NC	AUX -	UP_0 -	UP_0 +	AUX +	NC

RJ11

6 5 4 3 2 1
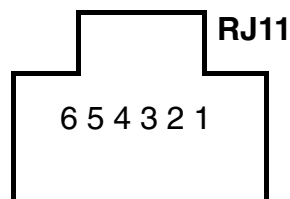
Functional Description

The phone adapter has a single MW6 modular connector with 4 pins that supply the interface for the client phone.

Restriction:

Range limited to 100 meters.

5.6 optiPoint 500 recorder adapter

Interfaces
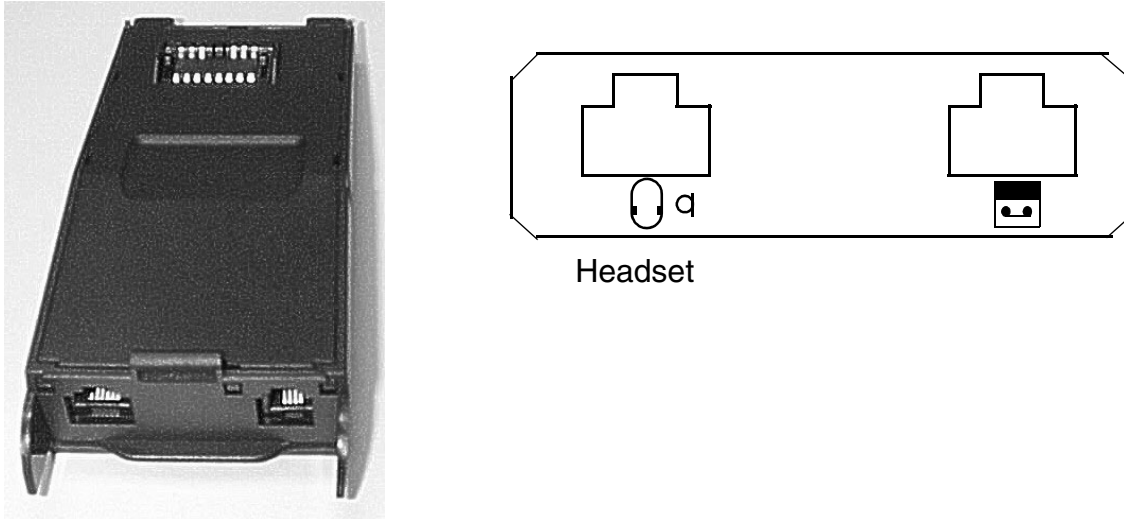
Figure 5-2   Recorder adapter

The recorder adapter has an interface for a second headset and a recorder interface.

The way in which the headset plus adapter interacts with the telephone and the CS is described by the CorNet-TS layer 3 specification for Symphony. The CS can detect a second headset after it has been plugged into this option.

Interface Description

When a second handset is connected, the uplink beep capability is provided by adding the beep and uplink audio during the beep. A beep detection circuit activates the uplink beep when the switch recorder generates the beep signal, thus maximizing the echo reflection attenuation. The users hear the uplink beep in the secondary tone path.

Second Handset: MW 4/4

Pin	1	2	3	4
	-	NF+	NF-	-

Internal resistance: 1k in series with 10µF

Level (input resistance 10 K):   -23dBm at a PCM level of -10 dBm

Recorder port: MW 6/4

Pin	1	2	3	4	5	6
	NC	NF+	NF+	NF	NF	NA

Ports 2 and 3 and ports 4 and 5 are connected to each other.

Recorder port

1 2 3 4 5 6
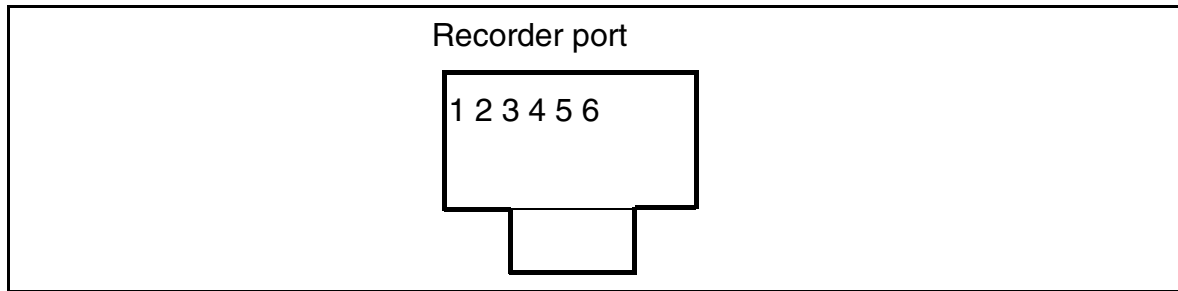
Electrical Requirements

Headsets that are connected to the headset plus adapter must meet the same requirements as those connected to the headset adapter.

Recorders that are connected to the headset plus adapter must meet the following requirements:

- Input impedance: >10 kohm
- Frequency variation: 300 to 3,000 Hz ± 3 dB
- Beep level: -26 dBm to -18 dBm with a 600-ohm load
- Max. input level: 650 mVeff from a 600-ohm source

The headset plus adapter already contains an electrical isolator for the recorder port.

Connection Example

Figure 5-3   Connection example: host, SPA, Client, 2 SNG - Power supply unit dependent on the configuration

5.7 Port Overview

Pin Nr	Phone					
	Up0	HA	HS	Side out	Bay out	USB
	MW6/4	MW4/4	MW4/4	MW8/8	B2B	USB Typ B
1	not asse	MIN1(DGND)	MIN2(DGND)	MRST	LPWR+	USB_VCC
2	LGND	HAP	HSP	DGND	LGND	D-
3	Up0_La	HAN	HSN	SCLK	APWR+	D+
4	Up0_La	MIP1+	MIP2+	(RX_INCA)	not asse	DGND
5	AUX+			(TX_INCA)	not asse	
6	not asse			SPI_CS	DGND	
7				+3V3	DCL	
8				MTSR	+3V3	
9					DD	
10					OPT_RESN	
11					DU	
12					FSC	
13					SCLK	
14					MTSR	
15					MRST	
16					OPT_CSN	

not asse	not assembled
nc	not connected
(xx_xx)	connection only during developement
res	reserved

Pin Nr	ISDN	Slave	Analog	Recorder	
	S0	Up0	a/b	2-nd Ear	Record
	MW8/8	MW6/6	MW6/6	MW4/4	MW6/6
1	nc	nc	nc	nc	nc
2	nc	AUX-	nc	HOP	RECP
3	SR1	Up0-	TIP+	HON	RECP
4	SX1	Up0+	RING	nc	RECN
5	SX2	AUX+	nc		RECN
6	SR2	nc	nc		nc
7	nc				
8	nc				

Pin Nr	Akustik			Key		Signature	BLF
	Audio	**Head**	**Contact**	**Side in**	**Side Out**	**Card**	**Power**
	MW8/8	MW8/8 cod	MW6/6	MW8/8	MW8/8	CCR	MW6/6
1	MIC_POW+	HS_RXD	ACT1	MTSR	MRST	SC_VCC	nc
2	MIC_DGND	DGND	ACT2	+3V3	DGND	SC_RSTN	POW-
3	MIP	MIN	RING1	SC_CS	SCLKO	SC_CLK	nc
4	MIC_SENSN	HSP	RING2	(VPP)	nc	nc	nc
5	LS_SENSN	HSN		(RESETN)	nc	DGND	POW+
6	LSP	MIP+		SCLK	CS_OUT	nc	nc
7	(BOOT)	+3V3		DGND	+3V3	SC_I/O	
8	AGND	HS_TXD		MRST	MTSR	SC_AUX	

6 CallBridge

optiPoint 500 basic, standard and advance models are equipped with a USB interface. This provides a USB 1.1 (client) "plug and play" port on a PC with MS Windows 98SE/2000.

The USB cable (S30267-Z360-A30-*) with right-angle plug is required for connecting optiPoint 500 to a Windows PC. This cable is not supplied with optiPoint 500.

6.1 CallBridge TU

The "Callbridge TU" program is ready for downloading. It sets up the connection from the PC to optiPoint 500 and offers PC-supported telephony. The telephone user should contact his system administrator for information on installing this program. This program is not installed by default by the Siemens technician.

● Callbridge TU software contains all TSP drivers for CorNet-TS, WS protocol and the TAPI 3.0 interface as the basis for customer-specific applications.

  The documentation for CallBridge you can find under following link adress:

  http://netinfo2.icn.siemens.de/e_doku/en/index.htm#hcab

6.2 CallBridge for Data

Data communication with PCs over optiPoint 500 system telephones.

CallBridge for Data is a software solution for PC data communication with the new optiPoint 500 telephone family.
The connection to ISDN transforms a PC into a communications workstation, especially when there is no LAN or when the LAN, without a gateway to the outside, allows data communication only within the company.
CallBridge for Data sets up the access to the Internet or fax and also allows additional data communication relationships to other data devices, both in analog telephone networks and with ISDN.

It takes only one USB cable to connect the PC to the telephone. CallBridge for Data thus replaces hardware components that would otherwise be necessary, such as an ISDN card in the PC and an ISDN adapter on the modular telephone.

The delivery consists of a CD-ROM with the CallBridge for Data software and accompanying electronic documentation. The USB cable must be ordered separately.

7 IP Adapter

An IP adapter provides voice communication via LAN connections.

The optiPoint IP adapter is an external adapter for optiset E terminals, which can be configured in the following system environment:

- Hicom 150 E Office/Hicom Xpress@ LAN

- Hicom 150 H

- HiPath Allserve 150 with HiPath HG1500

- HiPath 3000

- Hicom 300 E and Hicom 300 H

- HiPath 4000

IP Adapter Administration

The optiPoint IP adapter can be administered both via the telephone connected to the $U_{P0/E}$ port (basic settings only) and a LAN-based PC (web browser = HTTP client - all settings, e.g. Upload new firmware, Save configuration files, etc.).

Administration via telephone is essential for initial commissioning if DHCP support (**D**ynamic **H**ost **C**onfiguration **P**rotocol) is not available. DHCP support is activated by default in the case of optiPoint IPadapter. If DHCP is supported, the optiPoint IPadapter is automatically recognized in the LAN and can immediately be administered via the web browser.

For information on the administration of the LAN environment at Hicom Xpress @LAN, please refer to the administration manual for HiPath HG 1500/Hicom Xpress @LAN (reference no.: A31003-K5020-B811-*-7619).

> **Note:**
> - A voice client setting must be configured for Assistant I.
> - The extensions must be set manually as TFA clients for Assistant 300E.

Figure 7-1   System connection of optiPoint IPadapter

7.1   optiPoint IPadapter Installation

> **Note:**
> After connecting the IPadapter, it may take a moment for something to appear on the terminal display.

7.2   Connection to the Terminal
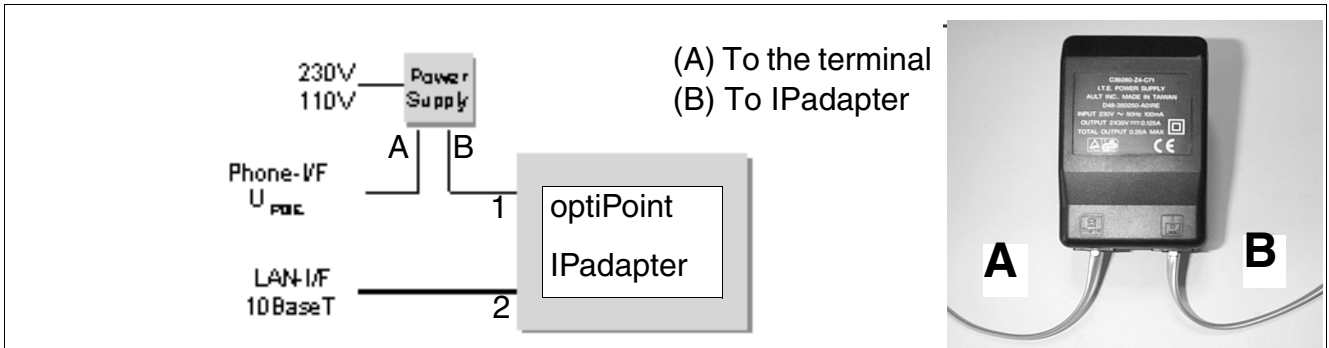
Figure 7-2   Overview: connecting an optiPoint IPadapter to the terminal

Connect the optiPoint IPadapter to the terminal in the following sequence (please also note the diagram "Electrical connection of the optiPoint IPadapter"):

1.   First of all, connect the $U_{P0/E}$ telephone via the power supply unit (A;B) to the $U_{P0/E}$ port on the IPadapter. Use the cable supplied with the local power supply unit for this (cable features RJ-11 Mini-Western connectors (point 1)).

2.   Connect the IPadapter to the LAN network. Use the LAN network cable (max. 3 m) supplied for this (cable features 3 RJ-45 Mini-Western connector (point 2)).

3.   Connect the local power supply unit at the socket provided.

7.3 Connection to the System
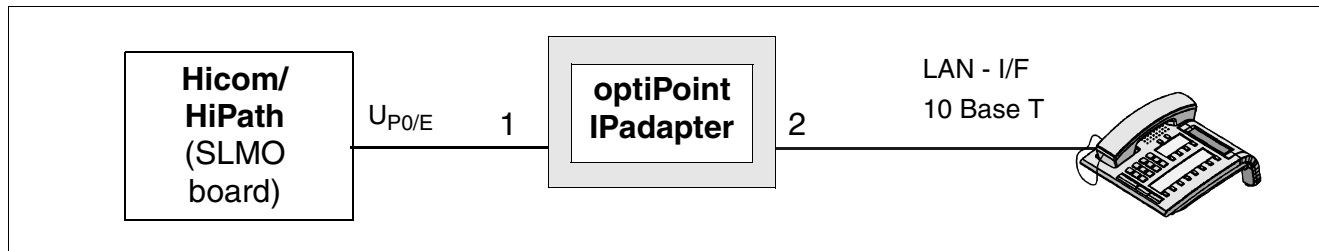
Figure 7-3 Overview: connecting an optiPoint IPadapter to the system

Connect the optiPoint IPadapter to the Hicom system in the following sequence (please also note the diagram "Electrical connection of the optiPoint IPadapter"):

1. First of all, connect the $U_{P0/E}$ port of the IPadapter to the Hicom system (SLMO board). Use the cable supplied with RJ-11 Mini-Western connectors (point 1).

2. Connect the IPadapter to the LAN network. Use the LAN network cable (max. 3 m) supplied for this (cable features 3 RJ-45 Mini-Western connector (point 2)).

The optiPoint IPadapter can be operated as a desktop unit or can be mounted on the wall with a screw. The wall attachment can be found on the back of the IPadapter (point 3).

Figure 7-4 Electrical connection of the optiPoint IPadapter

PIN assignments on the IPadapter

Connector/ jack		Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
$U_{P0/E}$	RJ11	NC	DC-	a($U_{P0/E}$)	b($U_{P0/E}$)	DC+	NC		
LAN	RJ 45	TDX+	TCD-	RXD+	NC	NC	RXD:	NC	NC

Table 7-1 Pin assignment

7.4 Administration Via the Web Browser

With the help of a PC (web browser) connected to the LAN network, you can start up/register the $U_{P0/E}$ telephone via the LAN. A DHCP server is necessary in order to configure the LAN settings automatically.

Structural overview

The following structural overview shows how you can navigate through the various web pages by clicking the relevant links.

> **Note:**
> The "ipway" string in the URL functions as placeholder for the address of the IPadapter.
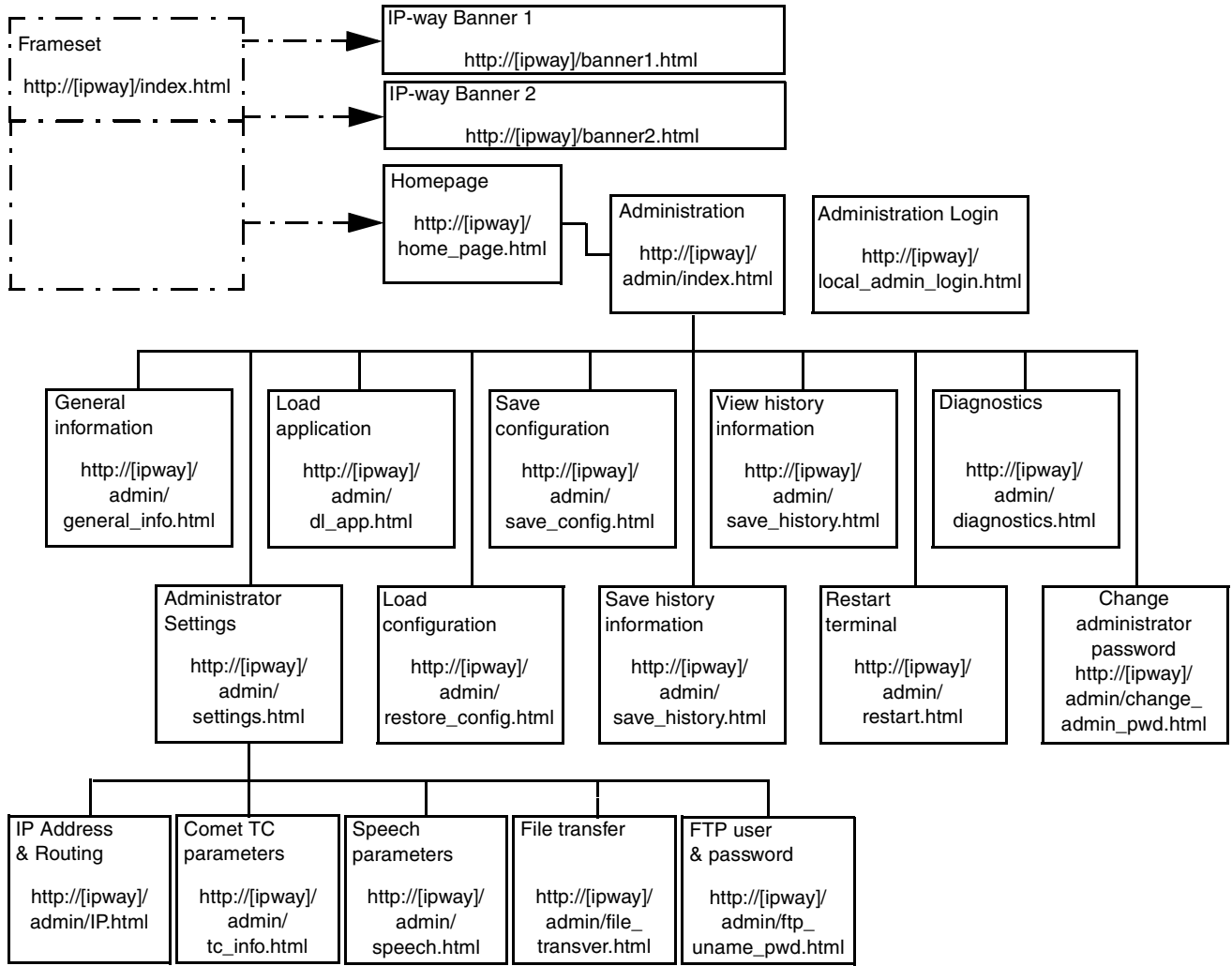
> **Note:**
> The configuration data entered (IP address) is retained by the IPadapter even:
>
> - if the connection to the LAN is cleared down
>
> - if the optiset E local power supply crashes
>
> - if the $U_{P0/E}$ telephone is disconnected
>
> The IPadapter/$U_{P0/E}$ telephone automatically goes back into operation as soon as LAN crashes/malfunctions are repaired.
> The IPadapter is ready for operation as soon as it is plugged back in or relocated on the LAN; no additional administration/configuration is required.
> The login procedure with password entry and authentication is performed by an encryption algorithm to guarantee LAN security.
> The local power supply unit required for operation is identical to the 3 power supply units supplied for the optiset E telephones (FRG/IM; UK and US).

Fault signaling:

Depending on the type of fault, an error message describing the fault that occurred appears when an incorrect entry is made in the web page (see the following example).

Error example:

An incorrect phone number ("123abc") was entered.

The following error message may appear on every web page in which parameters can be changed. The administrator is informed if no parameters can be modified.

● "Sorry the submission could currently not be accepted due to modification by another administrator"

The following error message appears when the administrator attempts to restart or download an application when the telephone is not idle. This is designed to prevent ongoing calls from being interrupted.

● "Sorry the submission could currently not be accepted"

This error message may appear on every web page when local administration of the IPadapter is implemented via an optiset E terminal.

Information on setting options can be found in the Windows help or the HTML file on the web browser.
To perform administration via the web browser, open the Administration menu.

To log on, proceed as follows:

1. Start the browser

2. Enter the relevant IP address

3. The optiPoint IPadapter homepage is displayed

SIEMENS	optiPoint IPadapter	IP address: 19.10.34.194 Tel.: 53323 Mode: phone-side

Home Page	Administration	Partner: 19.10.34.195

---

optiPoint IPadapter Home Page

The optiPoint IPadapter web server allows the <u>administrator</u> to:
• configure the administrator settings
• perform diagnostic tests
• download new software
• save and restore the terminal configuration

*Leads to
Administration page
(via Administrator
Login if necessary)*

---

4. Perform login for initial administration.

The password is "123456". For data protection reasons, the password should be changed after it has been entered.

---

optiPoint IPadapter administrator login

Password: ******

| Login | | Cancel |

*Leads to
requested page if
password OK,
otherwise this
page again*

*Leads to
home page*

---

5. The "Administration" mask appears.

Administration

- General Information
- Administrator settings
- Load (download from file server) application
- Load (download from file server) configuration
- Save (upload to file server) configuration
- Save (upload to file server) history information
- View history information
- Restart terminal
- Diagnostics
- Change administrator password

Home

---

6. Click General Information to check the MAC address and the file transfer status.

General information

MAC address: 76:A1:45:09:1D:02

Versions:

   BIOS: 0.20

   Application: 0.21.1

   Web content: 0.16

File transfer status:

	Last	Status
Application download	11:23, 5 Oct 1999	failed
Configuration download	9:05, 1 Oct 1999	OK
Configuration upload	never	-

Return to Administration   Home

This page shows the MAC address, the versions of the various software components and the status of the last data transfer action between the data server and the optiPoint IPadapter.

● "BIOS" contains the initialization software and factory test.

● "Application" contains the software with all the administrator functions for the optiPoint IP-adapter. This component can be updated via file transfer (configured on the website).

● "Web content" contains information on the version of the web interface.

7. Return to the "Administration" mask and click Administrator settings.

Administrator settings

• IP address and routing
• CorNet TC parameters
• Speech parameters
• File transfer
• FTP username & password

Return to Administration   Home

---

8.   Click "IP address and routing" and enter the following addresses:

IP address and subnet mask of OIP-2, the IP address of the IP partner --> HG1500 V1.0 (Xpress@LAN) or optiPoint IPadapter in "peer-to-peer" mode)

<div style="border:1px solid #000; padding:1em">

WARNING -
Changing any of these parameters will require to
subsequently restart the terminal to activate the new values

IP address and routing

☑ DHCP   IP address: 10.144.233.62

Subnet mask: 255.0.0.0

IP partner address: 0.0.0.0

IP Routing:

Default gateway: 0.0.0.0

Route 1: 0.0.0.0   Route 2: 0.0.0.0
Gateway 1: 0.0.0.0   Gateway 2: 0.0.0.0
Mask 1: 255.0.0.0   Mask 2: 255.0.0.0

[Submit]   [Reset]

Return to Administrator settings   Home

</div>

You also have the option of entering additional routing information. If the file server for uploading/downloading, the OIP-2 and the IP partner are located in different subnets and therefore cannot be addressed via a single subnet mask, this additional IP routing gateway must be entered.

9. Click "CorNet TC parameters" and enter the phone number, the CorNet TC password and the operation mode. The operation mode must be entered. A maximum of 24 characters are permitted for the first two input fields.

If more than 24 characters are input, the following message appears:

– "The submitted data contained an error: Invalid Phone number: <invalid value>"

– "The submitted data contained an error: Invalid CorNet TC login password: <invalid value>"

WARNING -
Changing any of these parameters will require to
subsequently restart the terminal to activate the new values

CorNet TC parameters

Phone number: [   ]

CorNet TC login password: [123456   ]
(optional)

Options are:
- *phone-side*
- *system-side*

Operation mode: [phone-side ▼]

[Submit]   [Reset]

Return to <u>Administrator settings</u>   <u>Home</u>

---

10. Click "Speech parameters" and select the appropriate audio parameters.

The setting of the jitter buffer depends on the properties of the customer network (LAN) in each case. Depending on the quality of the network, a zero speech delay ("Short" setting) or a significant speech delay ("Long" setting) may occur.

Speech parameters

Jitter buffer: Normal ▼

Audio mode: G711

Submit   Reset

Options are:
- *Short*
- *Normal*
- *Long*

Return to Administrator settings   Home

11. Click "File transfer" and enter all appropriate parameters.

```
┌─────────────────────────────────────────────────────────────┐
│  ┌───────────────────────────────────────────────────────┐  │
│  │ File transfer                                         │  │
│  │                                                       │  │
│  │   Fileserver IP address:          19.34.56.1         │  │
│  │                                                       │  │
│  │   Application fileserver filename: OIP_1_0.app        │  │
│  │                                                       │  │
│  │   Config fileserver filename:     database.ini        │  │
│  │                                                       │  │
│  │   History fileserver filename:    history.txt         │  │
│  │                                                       │  │
│  │   Fileserver path:                c:\                  │  │
│  │                                                       │  │
│  │   Action on submit:               No transfer    ▼    │  │
│  │                                                       │  │
│  │      [ Submit ]      [ Reset ]                        │  │
│  └───────────────────────────────────────────────────────┘  │
│                                                               │
│  Configuration of FTP username & password is on a separate page. │
│                                                               │
│    Return to Administrator settings      Home               │
└─────────────────────────────────────────────────────────────┘
```

Options are:
- *No transfer*
- *Upload configuration*
- *Download configuration*
- *Download application*
- *Upload history*

The parameters that are needed to download configurations from the server and to upload them to a server, or to download applications from a server and to upload history files are entered in this mask.

> **Note:**
>
> Ensure that the FTP server directory which contains the download software or configuration is enabled in the server configuration for the FTP user specified in optiPoint IPadapter.

The default parameters are displayed in the following table.

FTP parameter	Default
File Server IP address	'0.0.0.0'
Application file server file name	'oip.app'
Config file server file name	'oip.cfg'
History file server file name	'history.txt'

Table 7-2   FTP parameters

FTP parameter	Default
File server path	empty field

Table 7-2   FTP parameters

The default setting for "Action on submit" is "No transfer" every time you open this mask.

The following error messages appear if incorrect entries are made:

Cause of fault	Fault description
wrong file server IP address	No connection to server
file server not availlable	No connection to server
wrong file name for download	No file on server
invalid file name	No Access on server

Table 7-3   Error messages

12. Go to "FTP username & password" and enter the appropriate values for file transfer.

```
┌─────────────────────────────────────────────────┐
│                                                  │
│      ┌──────────────────────────────────────┐    │
│      │ FTP username & password              │    │
│      │                                      │    │
│      │        Username: │fred          │    │    │
│      │                                      │    │
│      │    New password: │*************│    │    │
│      │                                      │    │
│      │ Confirm new password: │*************│  │    │
│      │                                      │    │
│      │   ┌──────────┐    ┌──────────┐       │    │
│      │   │ Submit   │    │  Reset   │       │    │
│      │   └──────────┘    └──────────┘       │    │
│      └──────────────────────────────────────┘    │
│                                                  │
│                                                  │
│       Return to Administrator settings    Home   │
│                                                  │
└─────────────────────────────────────────────────┘
```

The fields displayed are empty each time you log into this page.

The following errors may occur:

● When blanks are inserted in the "Username" field (not permitted!)

– "The submitted data contained an error: Invalid Username"

● When various new passwords are entered

    –   "The submitted data contained an error: Inconsistent confirmation password"

● When an invalid password is entered to the "New password" field (at least one character must be entered)

    –   "The submitted data contained an error: Invalid new password"

13. Now return to the "Administration" mask and select "Load (download from fileserver) application" or "Load (download from fileserver) configuration" to download an appropriate application or configuration from a file server.

Load (download from fileserver) application

This operation will FTP a new application program file from a fileserver according to the details in the File transfer page. After the application is downloaded it will be validated. If valid, the new file will replace the existing program file and **the terminal will auto-restart**.

Download

FTP Settings:

- Server: *19.34.56.1*
- Filename: *OIP_1_0.app*
- Path: *c:*
- Account: *oip*

Return to Administration   Home

During the download, the following message is shown on the terminal display:

    –   OIP: Download started ...

    –   OIP: Programming ...

    –   OIP: Restart ...

Load (download from fileserver) configuration

This operation will FTP a new configuration file from a fileserver according to the details in the <u>File transfer</u> page. After the configuration data is downloaded it is required to subsequently restart the terminal to activate the new values.

<div align="center">

`Download`

</div>

FTP Settings:

- Server: *19.34.56.1*
- Filename: *database.ini*
- Path: *c:*
- Account: *oip*

Return to <u>Administration</u>   <u>Home</u>

---

14. Select "Save (upload to fileserver) configuration" to save an existing configuration on a file server

---

Save (upload to fileserver) configuration

This operation will FTP the current configuration data to a fileserver according to the details in the <u>File transfer</u> page.

<div align="center">

`Save`

</div>

FTP Settings:

- Server: *19.34.56.1*
- Filename: *database.ini*
- Path: *c:*
- Account: *oip*

Return to <u>Administration</u>   <u>Home</u>

---

15. With "Save (upload to fileserver) history information" you can save current history data to a file server

---

Save (upload to fileserver) configuration

This operation will FTP the current history information to a fileserver according to the details in the <u>File transfer</u> page.

<div align="center">

    Save

</div>

FTP Settings:

- Server: *19.34.56.1*
- Filename: *history.txt*
- Path: *c:*
- Account: *oip*

Return to <u>Administration</u>   <u>Home</u>

---

16. System messages are saved to the history file. In this way you can determine when the last data transfer action was implemented.

History file

13 day(s) ago, 17:53:31 TC_LOGON
 4 day(s) ago, 21:12:10 TC_LOGOFF
 4 day(s) ago, 21:12:23 TC_LOGON

<div align="center">

    Empty history

</div>

Return to <u>Administration</u>   <u>Home</u>

---

17. Select "Restart terminal" to initiate a terminal restart directly

Restart terminal

This operation will restart the terminal immediately.
(You will loose your web connection to the terminal.)

Restart

Return to Administration   Home

18. Click "Diagnostic" and test whether the line connection configured can be set up.

Diagnostics

The tests on this page do not require assistance from a local user.

Invoke tests

Select which tests to invoke:

☑ Ping -- IP address: `19.24.34.198`

☐ RAM test

☑ ROM test
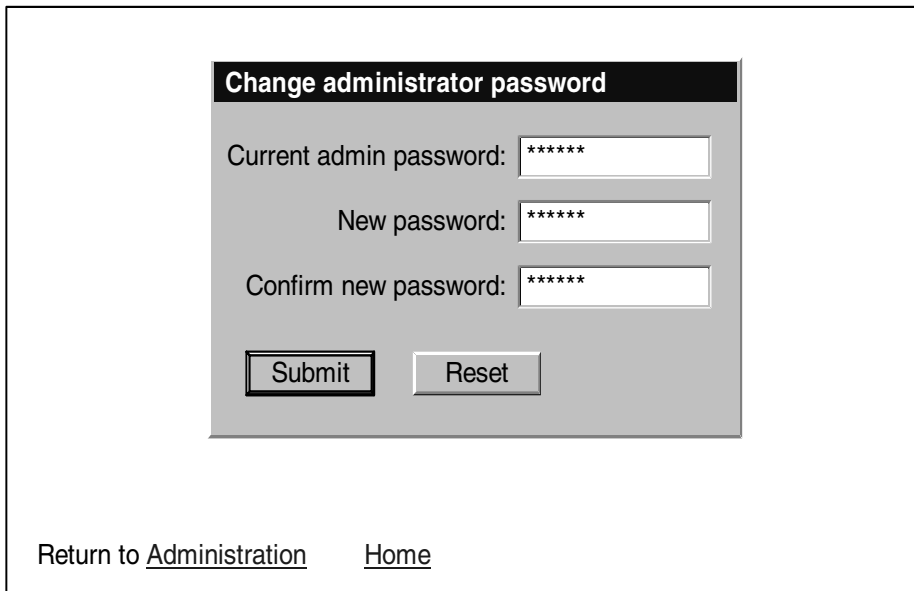
This page will be reloaded with the updated test results after the tests have been invoked.

[Invoke]   [Reset]

Test results

Ping:	Last run at 17:40, 25 Feb 1999
	Address pinged: 19.24,.34.198
	Result: successful; response received after 28mS
RAM test:	Last run at 17:40, 25 Feb 1999
	Result: failed
ROM test:	Last run at 9:33, 4 Jan 1999
	Result: passed

Return to Administration   Home

---

19. Click "Change administrator password" if you want to change the administrator password.

```
┌─────────────────────────────────────────────────────────┐
│                                                           │
│       ┌─────────────────────────────────────────┐        │
│       │ Change administrator password           │        │
│       ├─────────────────────────────────────────┤        │
│       │                                         │        │
│       │  Current admin password: │******   │    │        │
│       │                                         │        │
│       │        New password: │******   │        │        │
│       │                                         │        │
│       │  Confirm new password: │******   │      │        │
│       │                                         │        │
│       │   ┌──────────┐   ┌──────────┐           │        │
│       │   │  Submit  │   │   Reset  │           │        │
│       │   └──────────┘   └──────────┘           │        │
│       │                                         │        │
│       └─────────────────────────────────────────┘        │
│                                                           │
│       Return to Administration      Home                  │
└─────────────────────────────────────────────────────────┘
```

The following error messages appear if incorrect entries are made:

- If an invalid administrator password is entered

    – "The submitted data contained an error: Incorrect administrator password"

- When an invalid password is entered in the "New password" field (at least six characters must be entered)

    – "The submitted data contained an error: Invalid new password"

- When various new passwords are entered

    – "The submitted data contained an error: Inconsistent confirmation password"

7.5 Administration via optiPoint 500

Telephone-based administration is only possible at optiPoint terminals with display (i.e. not with entry, basic and signature).

> **Note:**
> Only IPadapters on the telephone side may be administrated with optiset E. With IP-adapters on the system side, initial administration (configuration of the LAN parameters) can be implemented via optiset E. However once the operation mode on the system side is switched, administration is only possible via a web browser.

If, however, you want to connect a telephone without display, then administration must first be performed with a display telephone. This telephone can then be disconnected.

The administration operation is menu-driven, i.e. all available settings are listed on the terminal's display. You can navigate between the various settings with the dialog keys. Once you have made all settings, select "Start phone?". The Administration mask closes and a connection between the terminal and the system is set up. Once optiset E has been started, you can only access the Administration menu again by unplugging and reconnecting the line (booting the IPadapter).

Fault signaling:

Faults that occur when operating the optiPoint IPadapter are displayed as follows:

● a short signal tone is emitted

● all available LEDs on the terminals begin flashing.

If the terminal has a display, an appropriate error message appears on the display. If multiple faults occur at the same time, the fault with the highest priority is displayed (see the following diagram).

```
┌─────────────────────────────┐                    highest priority
│ NO DHCP response            │                   │
│ Press any key?          >   │                   │
└─────────────────────────────┘                   │
                                                  │
┌─────────────────────────────┐                   │
│ Ping to Gateway failed      │                   │
│ Press any key?          >   │                   │
└─────────────────────────────┘                   │
                                                  │
┌─────────────────────────────┐                   │
│ Ping to Partner failed      │                   │
│ Press any key?          >   │                   │
└─────────────────────────────┘                   │
                                                  │
┌─────────────────────────────┐                   │
│ Generic socket error        │                   │
│ Press any key?          >   │                   │
└─────────────────────────────┘                   │
                                                  │
┌─────────────────────────────┐                   │
│ TC Login Error              │                   │
│ Press any key?          >   │                   │
└─────────────────────────────┘                   │
                                                  │
┌─────────────────────────────┐                   │
│ Error connecting partner    │                   │
│ Press any key?          >   │                   │
└─────────────────────────────┘                   │
                                                  │
┌─────────────────────────────┐                   │
│ Unknown Error               │                    lowest priority
│ Press any key?          >   │                   │
└─────────────────────────────┘                   ▼
```
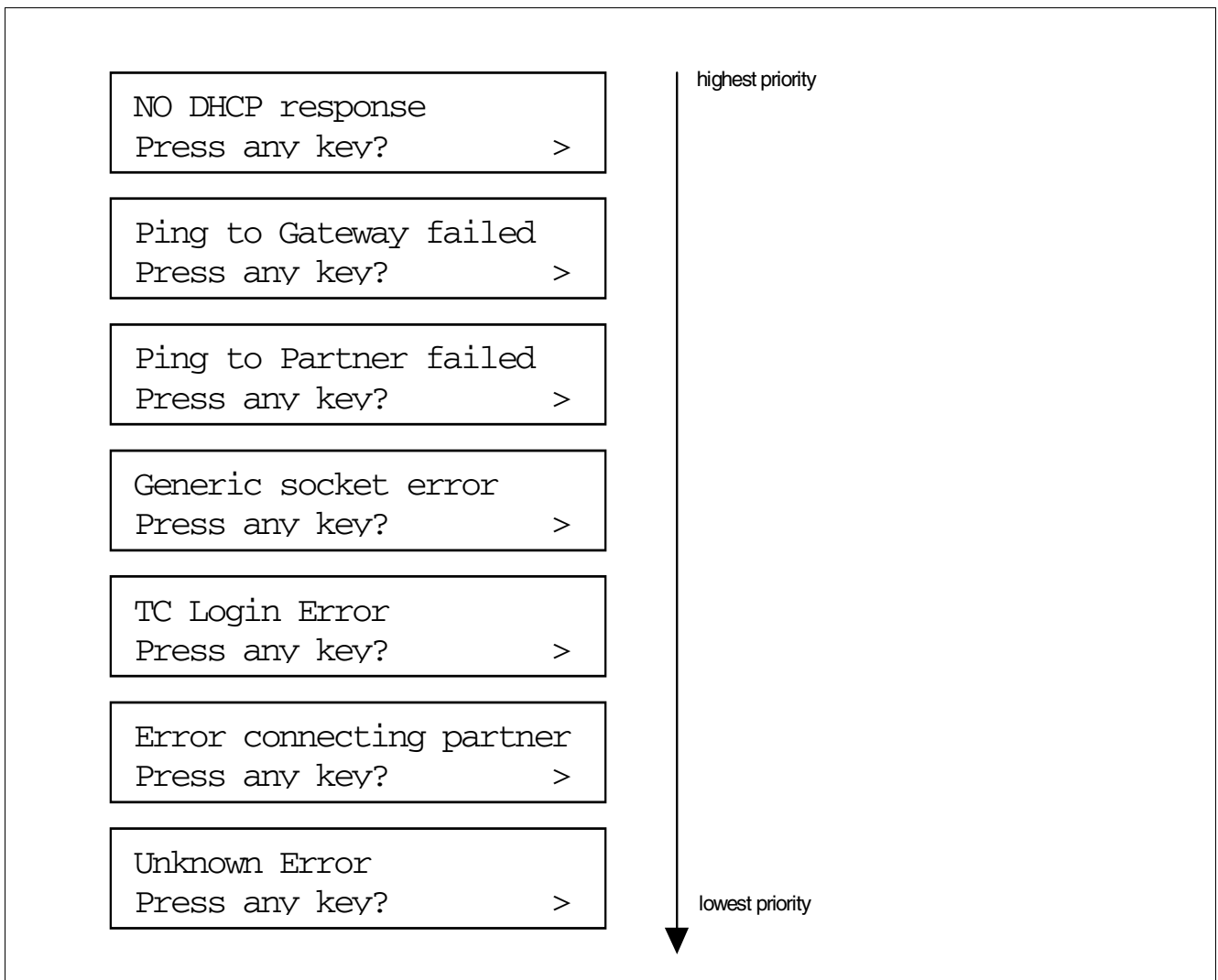
Figure 7-5   Faults shown on optiPoint display

Once a fault occurs, press any key on the terminal to open the optiPoint IPadapter administration menu. You can resolve the fault there by modifying the appropriate settings.

If a parameter is invalid or not set correctly, the following error messages are also displayed for the configuration setting:

'CFG error Oxnnnn'

Example:

If an invalid Partner_IP address is entered or if the partner IP address is not set, the following error code appears: '**0x1000**' (see figure below)

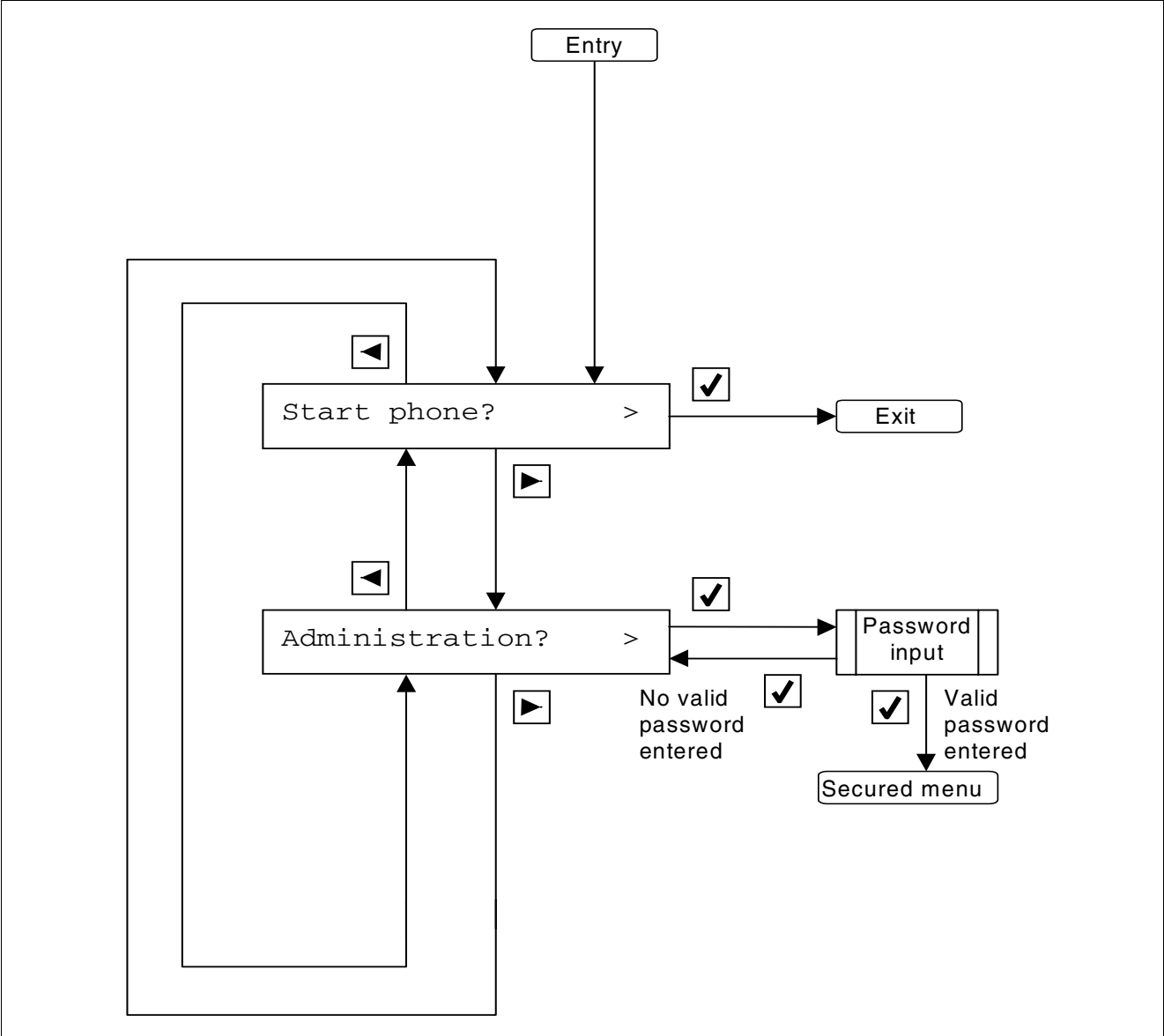|		
-	ERROR_FLASH	0x0001
-	ERROR_TFFS_DRV	0x0002
-	ERROR_TFFS_DRIVE	0x0004
-	ERROR_TFFS_CREATE	0x0008
-	ERROR_DOS_OPT	0x0010
-	ERROR_DOS_INIT	0x0020
-	ERROR_FACTORY_RESET	0x0040
-	ERROR_HISTORY_CREATE	0x0080
-	ERROR_HISTORY_OPEN	0x0100
-	ERROR_NO_INI_FILE	0x0200
-	ERROR_INI_FILE_EXPAND	0x0400
-	ERROR_INI_CHECK_TERM_IP	0x0800
-	ERROR_INI_CHECK_PARTNER_IP	0x1000
-	ERROR_INI_CHECK_GATEWAY	0x2000
-	ERROR_INI_CHECK_E164	0x4000

Figure 7-6   Error codes for configuration settings

To perform administration via the telephone, proceed as follows:

1. Use the arrow keys to go to the "Administration" mask and log in for initial administration. The password is "123456". Once you have entered the password for the first time, it should be changed to ensure data security (you will need a web browser).
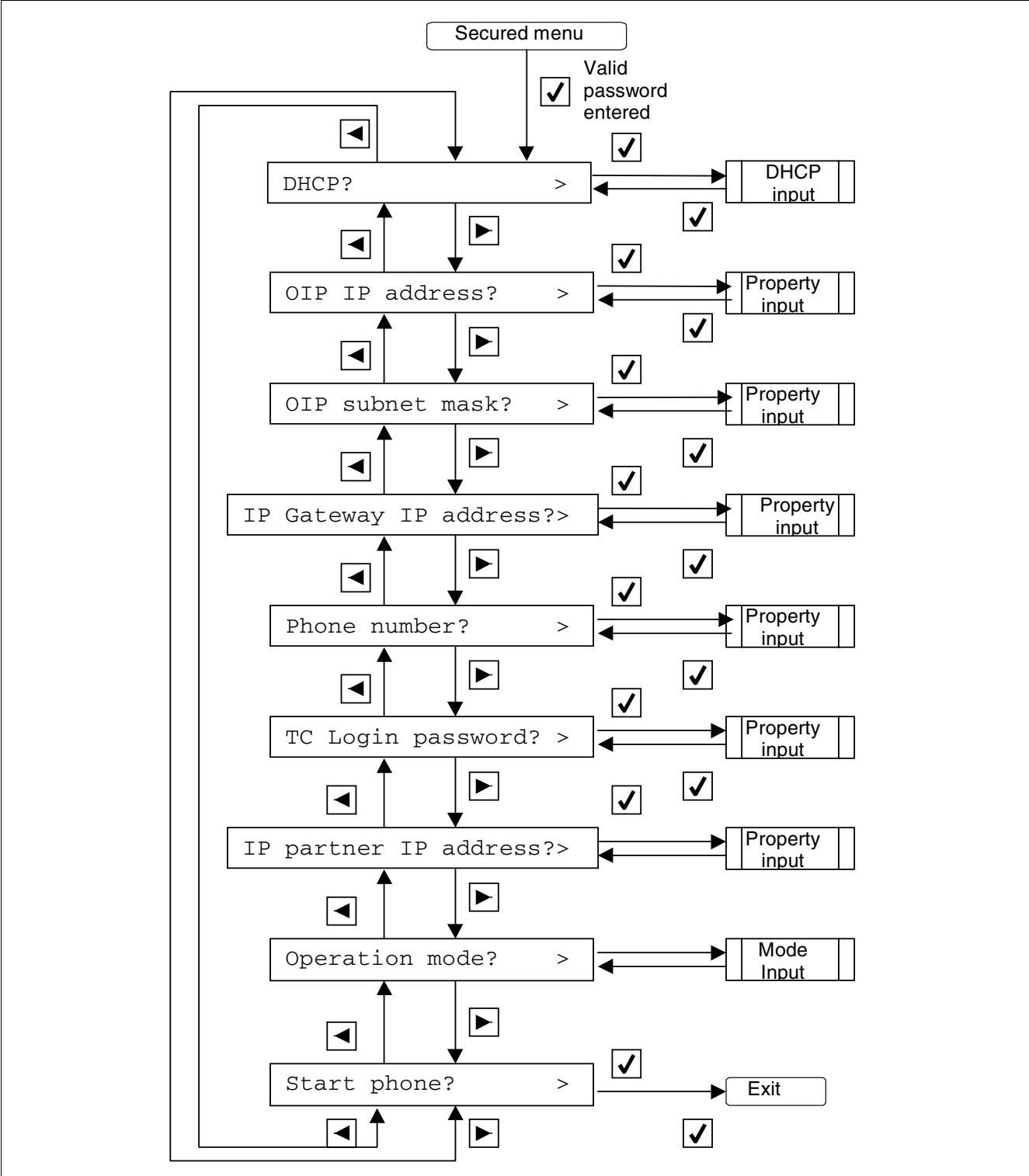
2. Enter the appropriate password for "Secured menu".

Entry

Password:

No valid
Password
entered

0 ... 9

◄ or ►

◄ or ►

Password
Abort?   >

No valid
Password
entered

Exit

Password:
*

No valid
Password
entered

Exit

Valid
Password
entered

0 ... 9

◄ or ►

◄ or ►

Password:
Abort?   >

No valid
Password
entered

Exit

and so on
until the line is full ...
(when line is full
no more entries are accepted)
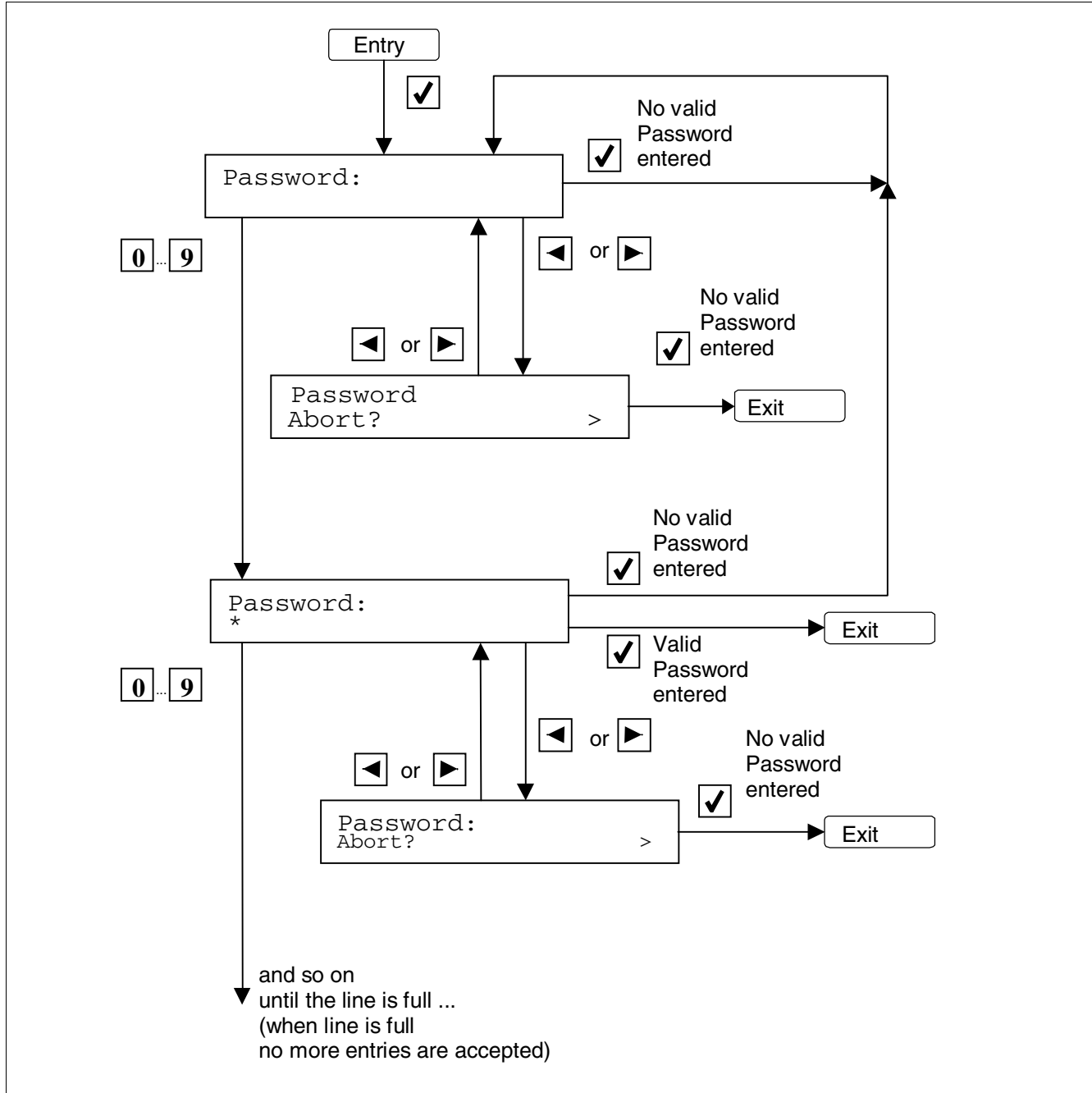
3. Enter the values shown in the following diagram one after the other in "Secured menu".
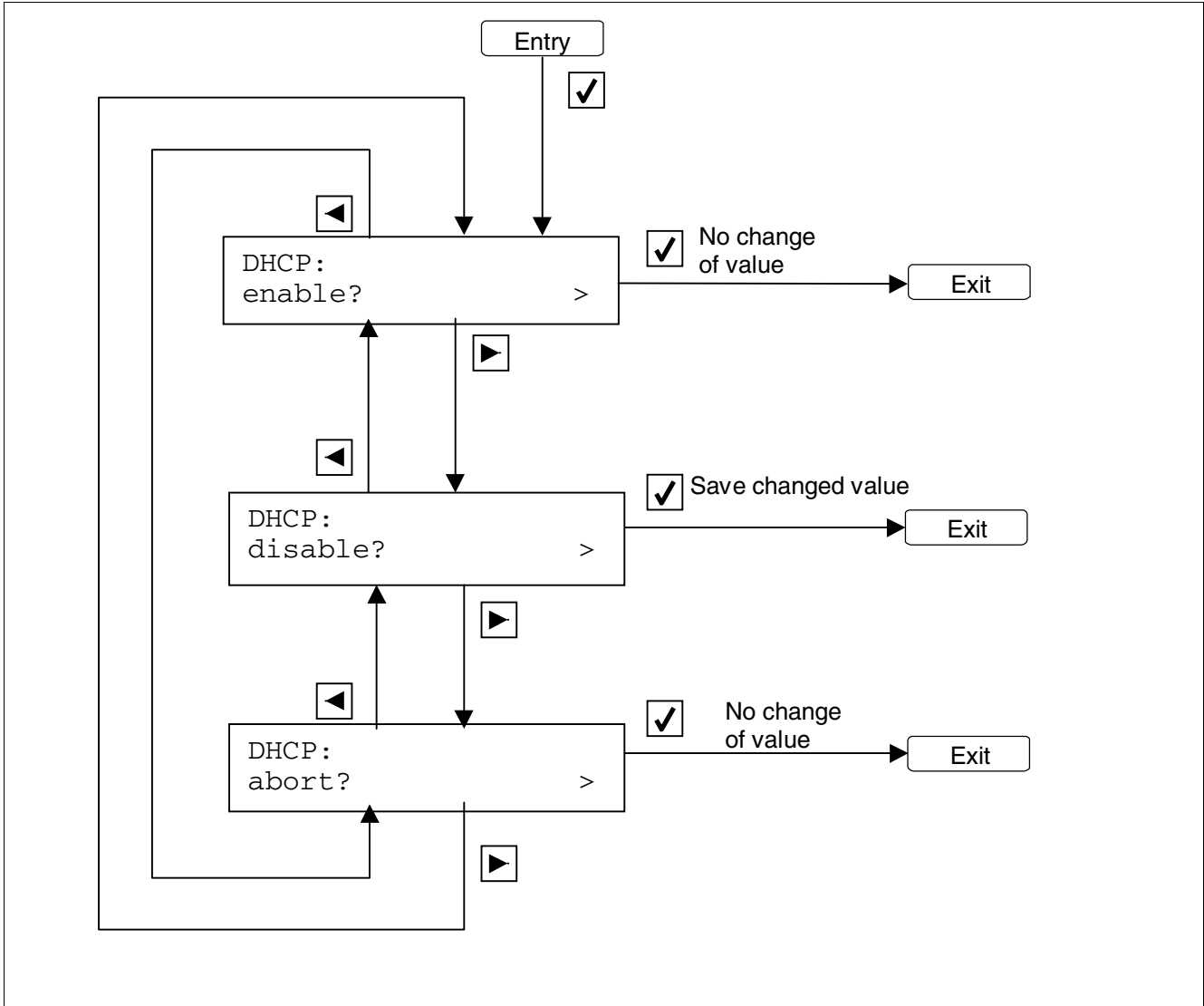
Example: "DHCP Input"

Example: "OIP IP address"

Example "Mode Input"
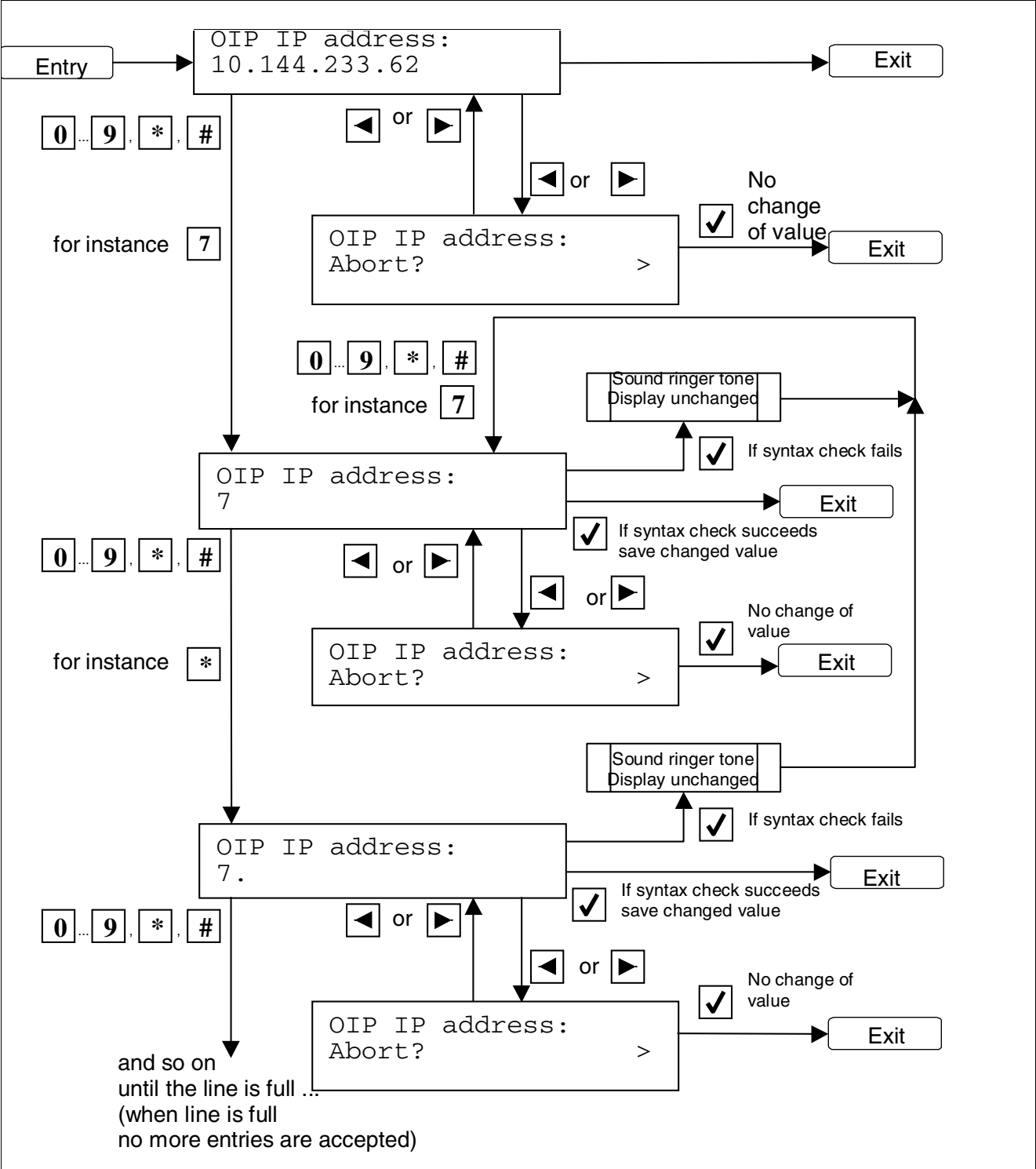
```
                                    ┌──────────┐
                                    │  Entry   │
                                    └──────────┘
                                         │
                                        [✓]
                                                    No change of
                          [◄]                [✓]    value
              ┌─────────────────────────┐                    ┌──────────┐
              │ Operation mode:         │  ───────────────►  │   Exit   │
              │ phone-side?          >  │                    └──────────┘
              └─────────────────────────┘
                          [►]
              [◄]
              ┌─────────────────────────┐  [✓]
              │ Operation mode:         │                [►]   [◄]
              │ system-side?         >  │
              └─────────────────────────┘
                          [►]
                          ┌──────────────────────────────┐
                          │ 'system-side' cannot be       │
                          │ undone - Change anyway?>       │
                          └──────────────────────────────┘
                                      [✓]  Save changed
                                           value
                                                    ┌──────────┐
                                           ───────►  │   Exit   │
                                                    └──────────┘
              [◄]                          [✓]  No change
                                                of value
              ┌─────────────────────────┐                    ┌──────────┐
              │ Operation mode:         │  ───────────────►  │   Exit   │
              │ abort?               >  │                    └──────────┘
              └─────────────────────────┘
                          [►]
```
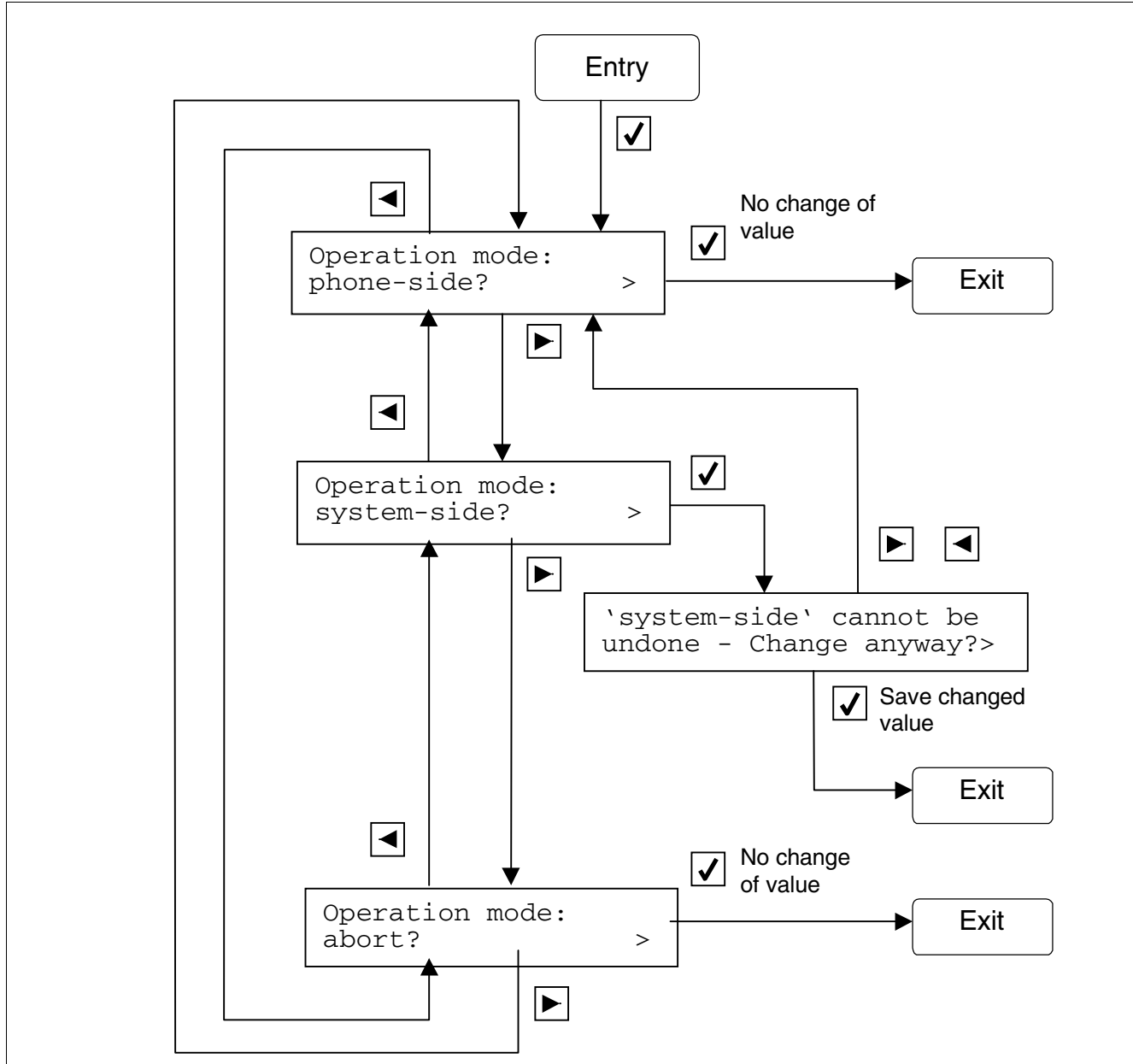
7.6   Configuration Examples

	When you restart the computer, the IPadapter is set to "phone-side" by default as on optiPoint 500.

Configuring the optiPoint IPadapter (peer to peer) for connection to HG 1500 (Xpress@LAN) with Hicom 150 Office

Configuring the IPadapter at Hicom:

1. The IP address must be configured using a telephone with display if a DHCP server is not available when putting the IPadapter into service for the first time (see Section "Administration via optiset E").

2. The adapter can then be accessed via the Web Client:

Figure 7-7   WEB access to the IPadapter

3. Click Administration. The administrator password must be entered.
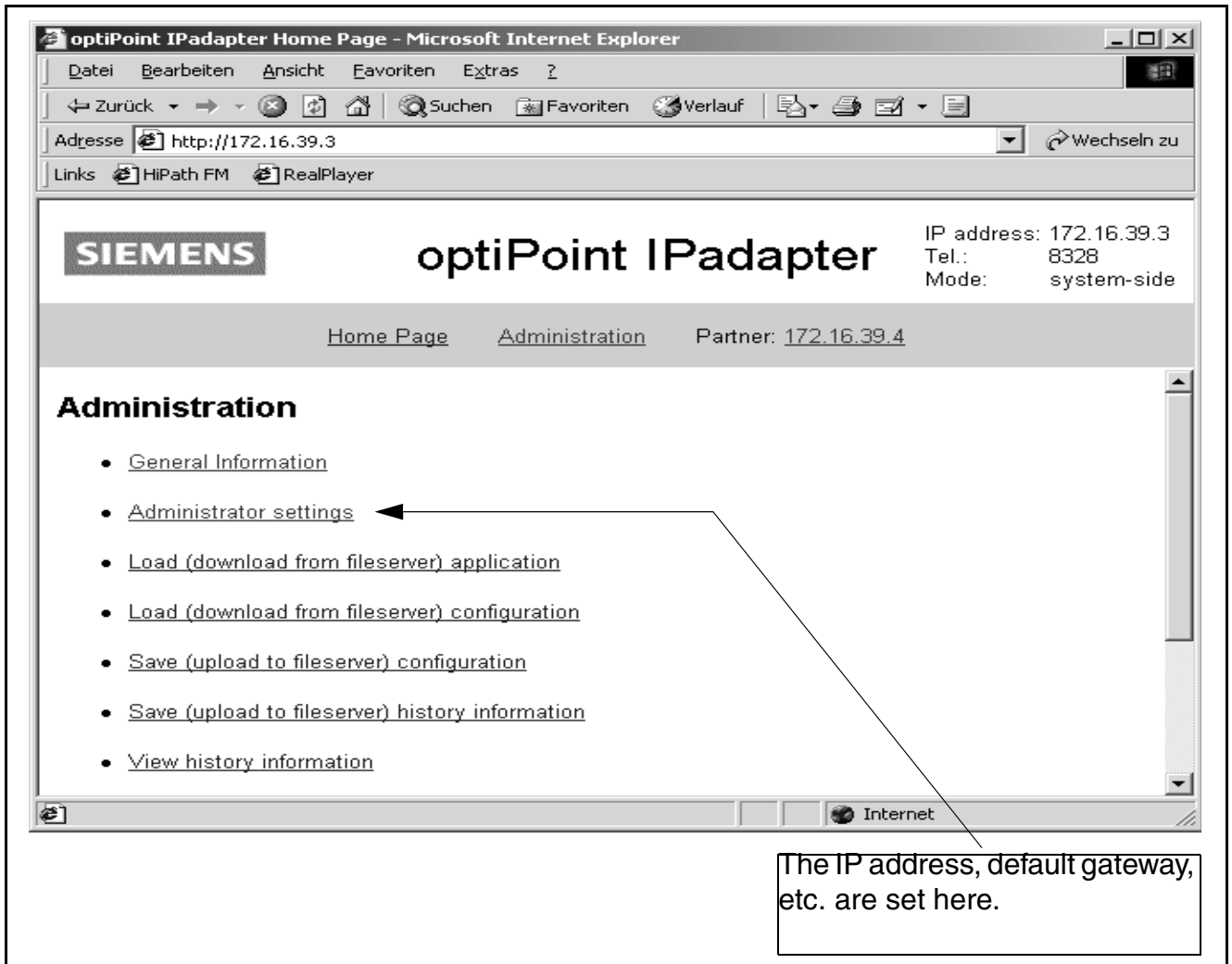
Figure 7-8   WEB page administration

4. Enter the following addresses:
   IP address, subnet mask, IP partner address and default gateway.

Configuration of the default gateway (the def. gateway must always be entered, even if it is in the same subnet). This is usually the same as the HG 1500 IP ad-

Partner IP address (the IP address for the HG 1500 - LAN interface in this case).

Figure 7-9   IP address and routing

- **Configuration in HG 1500 and Office:**

In HG 1500, a voice client is configured for the optiPoint IPadapter in the same way as for Opticlient 130 (see also the HG 1500 Service Manual).

The phone number for the IPadapter must already be available in Office. The optiPoint IPadapter phone number must be activated as the TFA Client after configuration in HG 1500 (see following screenshot).
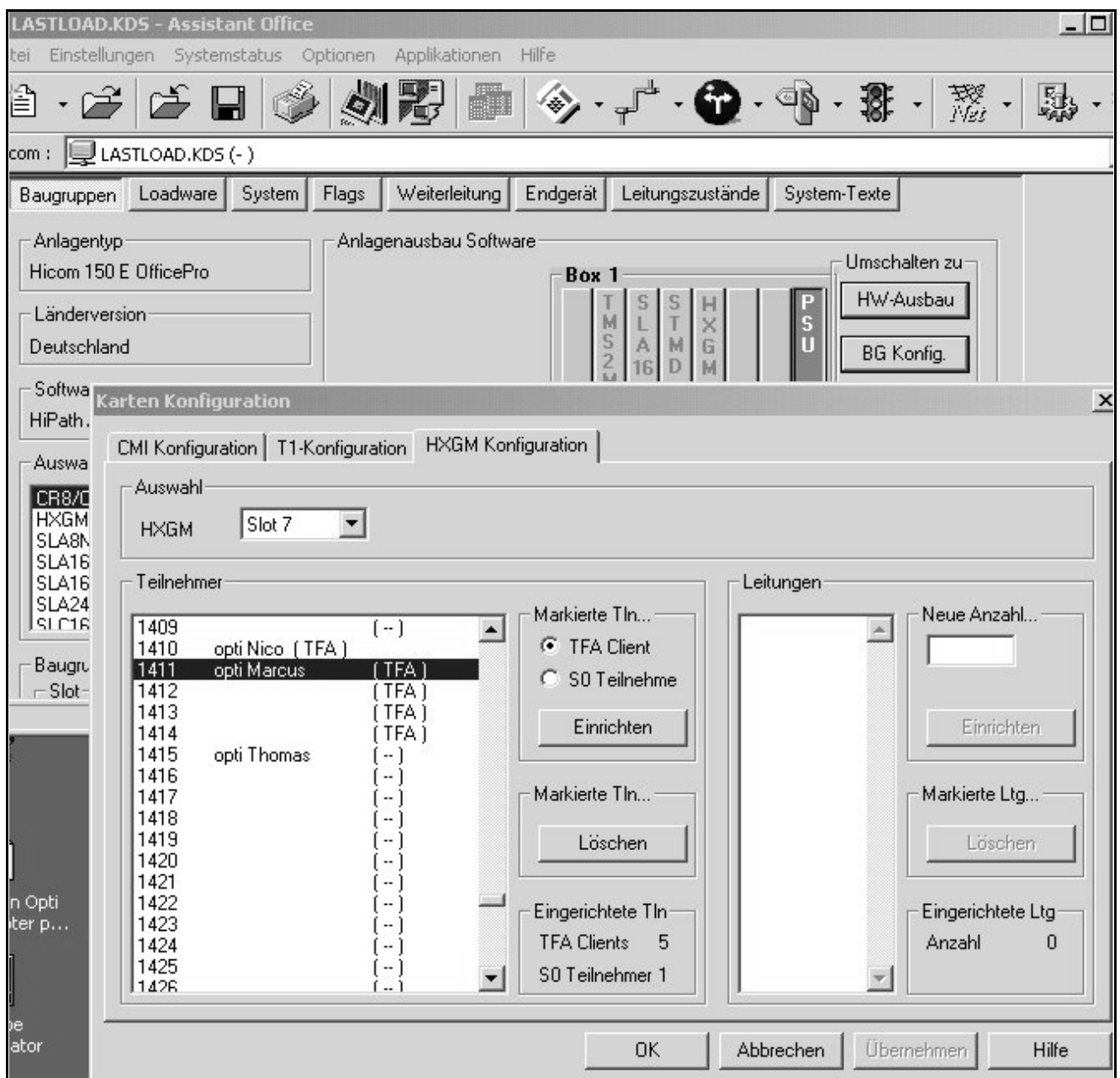
Figure 7-10   Settings in Assistant Office

Configuring the optiPoint IPadapter (peer to peer) for connection to the U$_{P0E}$ port of Hicom 150 E and Hicom 300E

● **Configuring the IPadapter at Hicom:**

1. The IP address must be configured using a telephone with display if a DHCP server is not available when putting the IPadapter into service for the first time (see Section "Administration via optiset E").

2. The adapter can then be accessed via the Web Client:
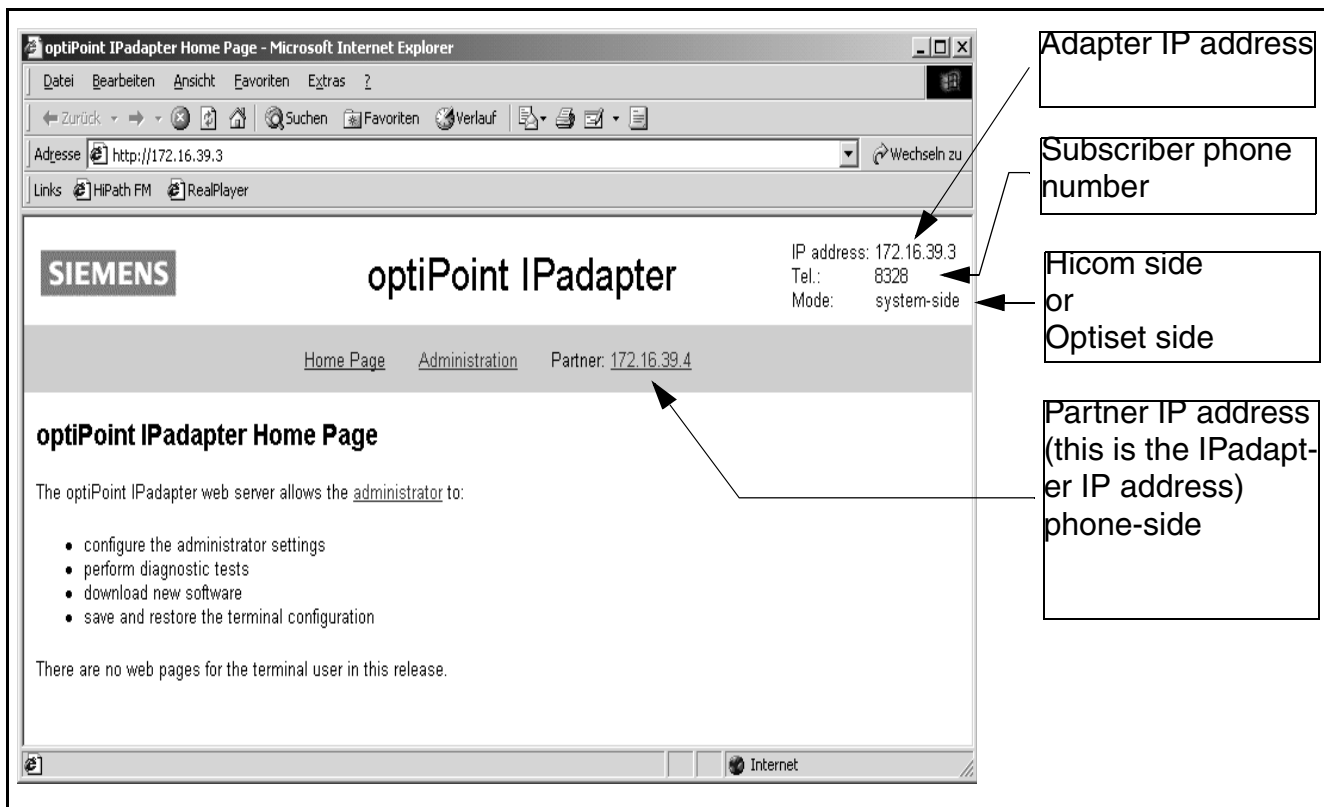
Figure 7-11   optiPoint IPadapter homepage

3. Click Administration. The administrator password must be entered.
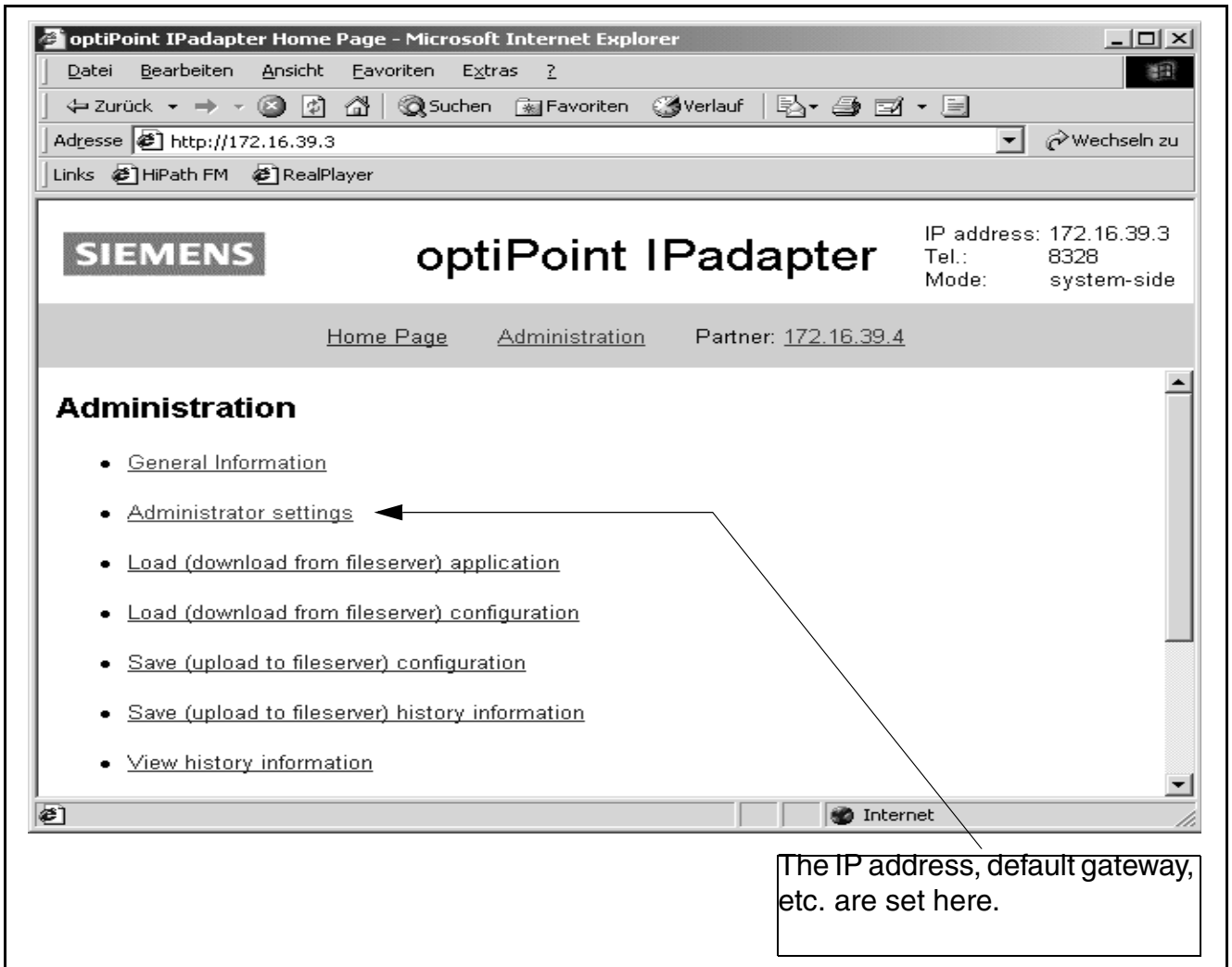
Figure 7-12   WEB page administration

4. Enter the following addresses:
   IP address, subnet mask, IP partner address and default gateway.

Figure 7-13   IP address and routing

- **Configuring the optiPoint IPadapter on the optiset E.**

The same procedure is adopted for the configuration of optiPoint IPadapter on the optiPoint 500 (phone-side) except that in each case, the other IP address is entered as the IP address and IP partner address.

When you restart the computer, the IPadapter is set to "phone-side" by default as on optiset E.
The IPadapter connected to the U_{P0} port should only be switched to "system-side" mode using the WEB interface after configuration has been completed. The IPadapter resets itself after switching to "system-side" mode.

The IPadapter which is set to "system-side" mode can then only be administrated via the Web browser and not via an optiPoint system telephone.
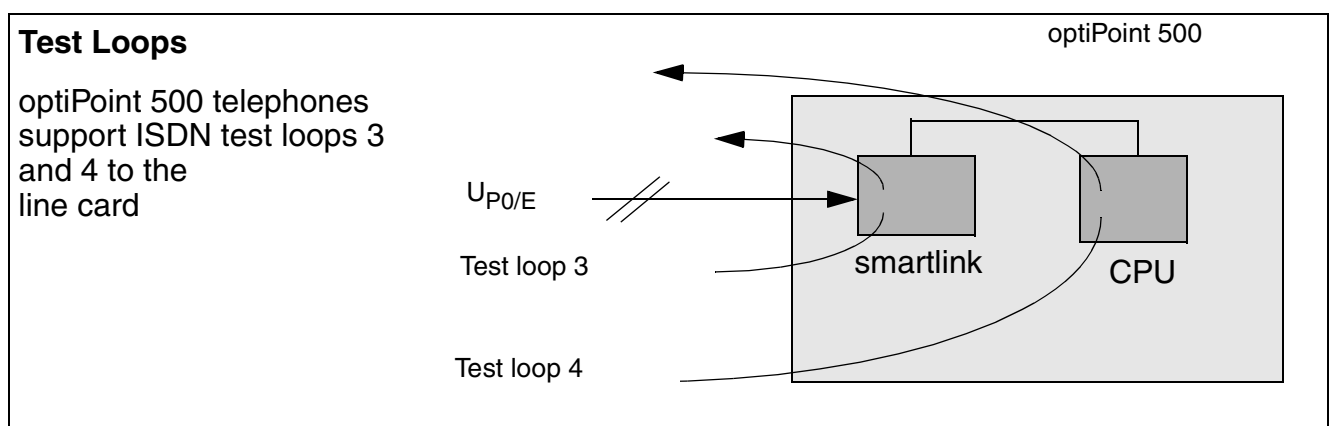
8 Troubleshooting

The telephone tests for optiPoint 500 are described in Section 3.6.

Troubleshooting for optiPoint 500 can be carried out on site by replacing the faulty equipment or with the appropriate spare parts.

8.1 Test Loops 3 and 4

Hicom/HiPath provide diagnostic modes that are supported by the telephone (test loops 3 and 4).

8.2 Reboot

The first time the telephone is turned on or is reset by the local firmware, this reboot is represented visually as follows:

- All LEDs on the telephone are activated for 20 ms (+/- 5 ms).

- All LEDs on connected key modules are activated for 20 ms (+/- 5 ms).

- All pixels on the screen are activated for one second.

These procedures show that the telephone was rebooted and has completed its self-test procedures.

They do not indicate that communication has been established with the Hicom/HiPath.

After communication has been established with Hicom/HiPath, the Hicom/HiPath controls the screen and LEDs (excluding entry), thus showing the user that the telephone is ready for operation.

9 Ordering Information

9.1 Products and Spare Parts

9.1.1 Initial Equipment: Telephone Models, Optiset E Key Modules, and Adapters

Name	Color	Part Number
optiPoint 500 entry	arctic	S30817-S7101-A101-*
optiPoint 500 economy	arctic	S30817-S7108-A101-*
optiPoint 500 basic	arctic	S30817-S7102-A101-*
optiPoint 500 standard	arctic	S30817-S7103-A101-*
optiPoint 500 advance	arctic	S30817-S7104-A101-*
optiPoint key module	arctic	S30817-S7105-A101-*
optiPoint signature module	arctic	S30817-S7106-A101-*
optiPoint BLF	arctic	S30817-S7107-A101-*
optiPoint 500 entry	manganese	S30817-S7101-A107-*
optiPoint 500 economy	manganese	S30817-S7108-A107-*
optiPoint 500 basic	manganese	S30817-S7102-A107-*
optiPoint 500 standard	manganese	S30817-S7103-A107-*
optiPoint 500 advance	manganese	S30817-S7104-A107-*
optiPoint key module	manganese	S30817-S7105-A107-*
optiPoint signature module	manganese	S30817-S7106-A107-*
optiPoint BLF	manganese	S30817-S7107-A107-*

Table 9-1　　opiPoint 500 models

Name	Color	Part Number
optiPoint phone adapter	arsenic	S30817-K7110-B108-*
optiPoint analog adapter	arsenic	S30817-K7110-B208-*
optiPoint ISDN adapter	arsenic	S30817-K7110-B308-*
optiPoint recorder adapter	arsenic	S30817-K7110-B408-*

Table 9-2　　optiPoint 500 adapters

Name	Color	Part Number
optiPoint acoustic adapter	arsenic	S30817-K7110-B508-*

Table 9-2   optiPoint 500 adapters

Name	Color		Part Number
optiPoint 500 entry	arctic	without HS	S30817-S7101-N101-*
optiPoint 500 economy without logo	neutral arctic	without HS	S30817-S7108-N101-*
optiPoint 500 basic	arctic	without HS	S30817-S7102-N101-*
optiPoint 500 standard	arctic	without HS	S30817-S7103-N101-*
optiPoint 500 advance	arctic	without HS	S30817-S7104-N101-*
optiPoint 500 entry	manganese	without HS	S30817-S7101-N107-*
optiPoint 500 economy without logo	neutral manganese	without HS	S30817-S7108-N107-*
optiPoint 500 basic	manganese	without HS	S30817-S7102-N107-*
optiPoint 500 standard	manganese	without HS	S30817-S7103-N107-*
optiPoint 500 advance	manganese	without HS	S30817-S7104-N107-*

Table 9-3   optiPoint 500 without HS

9.1.2 Accessories, Spare Parts, Miscellaneous

Name	Color		Part Number
optiPoint 500 handset	arctic	with logo	V38140-H-X173-*
optiPoint 500 handset	manganese	with logo	V38140-H-X174-*
optiPoint 500 handset	arctic	without logo	V38140-H-X175-*
optiPoint 500 handset	manganese	without logo	V38140-H-X176-*

Table 9-4   optiPoint 500 handset with/without logo

optiPoint entry (wall brackets) arsenic	L36363-A328-C338-*
optiPoint basic (wall brackets) arsenic	L36363-A329-C338-*
LINE CORD BRACKET	F30033-X1000-X92
BRACKET socket	C39334-Z93-C12
Handset cord	L36146-H4007-L589-*
LINE CORD 6M SI 4-WIRE AS4/RJ11	F30033-X1000-X125
LINE CORD 6M SI 4-WIRE RJ11/RJ	F30033-X1000-X185
LINE CORD 6M SI 4-WIRE RJ11/RJ	F30033-X1000-X176
USB cable for PC	S30267-Z360-A30
optiPoint Y cable	L36453-Z5-C199-*
LOCAL POWER SUPPLY ANAL.ADAPTER	AUL:06D1284
LOCAL POWER SUPPLY GBR	AUL:06D1287
LOCAL POWER SUPPLY 110V USA	AUL:51A4827
POWER TYPE-CONNECTING RELAY	L30460-X1345-X

Table 9-5   optiPoint 500 more spare parts

EXTRA HEADSET	C39212-Z2-C8
Cordless Headset for extended 121TR9-5 interface	
Ellipse 1.8 EHS	L30220-F600-H186
CA40 EHS	L30220-F600-H187
CA40 EHS Firefly	L30220-F600-H188
Headsets 121TR9-5 for the optiPoint acoustic adapter or advance headset interface (built-in)	
optiPoint headset	
2100 Flex Boom NC Mono	L30220-F600-H184
2100 Flex Boom NC Duo	L30220-F600-H185
Encore monaural	L30460-X1282-X1
Encore binaural	L30460-X1282-X2
Tristar	L30460-X1282-X3
Supra	L30460-X1282-X4
DuoSet	L30460-X1282-X5
Profile monaural	L30460-X1283-X1
Profile binaural	L30460-X1283-X2
Active loudspeaker box arctic	L30460-X1278-X11
(incl. main adapter)	
Active loudspeaker box manganese	L30460-X1278-X12
(incl. main adapter)	
Active loudspeaker box arctic	L30460-X1278-X21
(incl. main adapter)	
Active loudspeaker box manganese	L30460-X1278-X22
(incl. main adapter)	
Add-on microphone arctic	L30460-X1279-X1
Add-on microphone manganese	L30460-X1279-X2
16-pack (key)	L36363-A332-C281-*
Accessory pack, entry	D7101-A101-1
Accessory pack basic, standard, advance	D7102-A101-1

Table 9-5   optiPoint 500 more spare parts

Accessory pack for advance	D7104-A101-1
Accessory pack for BLF	D7107-A101-1
Accessory pack for general optiPoint 500	A31003-H8400-B989-*-6Z19

Table 9-5   optiPoint 500 more spare parts

9.2   Documentation

Name	Reference number [*]
Installation instructions	
Installation Instructions - key module	A31003-E8000-S078-*-6Z31
Installation Instructions - signature module	A31003-E8000-S096-*-6Z31
Installation Instructions - phone adapter	A31003-E8000-S079-*-6Z31
Installation Instructions - acoustic adapter	A31003-E8000-S092-*-6Z31
Installation Instructions - ISDN adapter	A31003-E8000-S080-*-6Z31
Installation Instructions - analog adapter	A31003-E8000-S091-*-6Z31
Installation Instructions - wall mounting	A31003-E8000-S083-*-6Z31
Installation and Administration Instructions IPadapter	A31003-E8000-B869-*-7419
Installation Instructions - optiPoint 500 CTI TAPI Service Provider	A31003-M3000-B479-*-7419
Installation and Operating Instructions - privacy module	A31003-E8000-B519-*-6Z19
Operating Instructions - external speaker and desk microphone	A31003-X40-B600-*-6419
Operating instructions for all optiPoint 500 devices and all switches on CD-ROM	Downloads on the Internet at: www.hipath.de Order from: http://c4bs.spls.de/index.cfm?cftoken=641474811&cfid=80697&Anmeldung=1
Key labeling program	Downloads on the Internet at: www.hipath.de Order from: http://c4bs.spls.de/index.cfm?cftoken=641474811&cfid=80697&Anmeldung=1
Online key labeling tool on the Internet	<http://w4.siemens.de/networks/hipath/de/download/index.htm>

Table 9-6   Documentation

[*]   The final digits in the part number designate the following languages:
-19/-20=German; -7419= German/English; -7619/-7620=English; -7719=French; -7219=Italian
-6Zxx = Dutch, English, French, German, Italian, Portuguese, Spanish

9.3   Order Addresses

Product	Company Address	Telephone[*] Fax	Order Form Recipient
Spare parts and replacement equipment	Siemens AG ICN Ersatzteilvertrieb Hofmannstr. 51 D-81359 Munich	Germany Phone: 089-722-33330 Fax: 089-722-36512 Outside Germany: Phone: 089-722-38213 Fax: 089-722-37538	C2202
Service and operating instructions	Siemens AG LZF Gründlacherstr. 258 - 260 D-90765 Fürth-Bislohe	Fax: 0911-3001-4271 Telex: 623313	G3876
Side-load kit	TIS GmbH Barloer Weg 190 D-46397 Bocholt	Phone: 02871-2722-12 Fax: 02871-37862	-
optiPoint 500 handset with mute key and special designs	Bühner&Schaible Kommunikationstechnik D-73663 Bergen	Phone: 07181-97840-27 Fax: 07181-97840-22	-
I2C bus memory cards for signature modules	A&D SE Würzburgerstr. 121 90766 Fürth Mr. Rainer Eickholt Rainer.eickholt@fthw.siemens.de	Phone: +49 911 7509267 Fax+49 911 7509800	
Key labeling sheets - 40 pre-cut sheets for economy/basic/standard/advance (for every 5 telephones) - 10 pre-cut sheets for entry (for every 15 telephones)	Siemens AG LZF Gründlacherstr. 258 - 260 D-90765 Fürth-Bislohe	Phone: 0911-3001-4271 Fax: 623313	G3876

Table 9-7   Order addresses

   *   When calling from outside Germany, replace the first 0 in the phone or fax number with +49.

9.4 After-Sales Service and Repair

optiPoint 500 and accessories for repairs and replacements can be ordered via EWS from the Spare Parts Service.

Product	Company Address	Telephone[*] Fax	Order form recipient
Spare parts and re-placement equipment	Siemens AG ICN Ersatzteilvertrieb Hofmannstr. 51 D-81359 Munich	Germany Phone: 089-722-33330 Fax: 089-722-36512 Outside Germany: Phone: 089-722-38213 Fax: 089-722-37538	C2202

* When calling from outside Germany, replace the first 0 in the phone or fax number with +49.

9.5   Intranet Addresses

Subject	Address
SIS (Service Information System)	http://sis.icn.siemens.de/sis/base.nsf
Service Guidelines	http://netinfo.icn.siemens.de/icnens/produkte/service_richtlinien/richtlinien_d.htm
EWS (Engineering Workstation)	http://netinfo.icn.siemens.de/icnens/tools_rules/tapim/tapim_d.htm
ITSC (International Technical Support Center)	http://itsc.icn.siemens.de/index.htm
ES D 132 homepage (information about integrating telephones and protocol scripts)	http://www-ls-dev.mch.pn.siemens.de/esd132/index.htm
ICN TI (Technical Information)	http://godzilla.mchh.siemens.de/gspnti/deutsch/auswahl.htm
ICN VZ DC 2 Documentation Center	http://intranet.icn.siemens.de/vz_dc_2/index.htm
optiPoint 500 Homepage Rolm	http://desktops.au.rolm.com/prdct/optiset/main.htm
Fürth Central Supply	http://www.click4business-supplies.de
Firma TIS GmbH	http://www.tis-gmbh.de
Firma Bühner & Schaible	http://www.buehner-schaible.de

Table 9-8   Intranet addresses

Abbreviations

The following list contains the abbreviations used in this manual.

Abbreviation	Definition
API	Telephony Application Programming Interface
ARCOFI	Audio Ringing Codec Filter (audio chip)
ASL	Connecting Cable
Audio Bus	Analog transmit and receive signal
BDSG	German Data Protection Act
BSG	Key Module Port (RJ45, 8-pin)
CCITT	Comité Consultatif International Télégraphique et Télephonique
CorNet	Corporate Network Protocol
CS	Communication Server
CTI	Computer Telephony Integration
DC/DC	DC-DC Power Supply Converter
DCE	Data Circuit Terminating Equipment
DHCP	Dynamic Host Configuration Protocol
DIU	PCM 30 power set
DMI	Digital Multiplexer Interface
DTE	Data Terminal Equipment
DTMF	Dual-Tone Multifrequency Signaling
EEPROM	Electrically Erasable and ReProgrammable Read-Only Memory
ENB	Electronic NoteBook
ESD	Electrostatically Sensitive Devices
FW	Firmware
GU	Hookswitch (reed relay with magnet in handset)
HA	Handset port (RJ 8)
ICCS	Integrated Communication Cabling System
ICN TI	Information and Communication Networks Technical Information
IOM2	ISDN-Oriented Modular (2B + D channel access)

Abbreviation	Definition
ISDN	Integrated Services Digital Network
ISO	International Standard Organization
Keys	Key Matrix
LAP-D	Link Access Procedure on the D-channel
LCD	Liquid Crystal Display (with standard and modular telephones only)
LED	Light-Emitting Diode
Lsp.	Speaker for ringer, open listening and speakerphone mode
Mikr.	Microphone (with optiset E standard, advance plus, and memory telephones only)
OTO	Optiset Teleworking Option
PC	Personal Computer
PC-AC	PC Attendant Console
PNT	Private Network Termination
Power	Power supply for options, 5 V and 21 - 56 V (from $U_{P0/E}$)
RJ	MWxx connector
RNG	Call Number Generator (optiset E key module)
RS232	Data Interface (optiPoint data adapter)
SAR-T	SAR-T relay
SLMQ	Subscriber Line Mode Q
Smartlink	Line chip for $U_{P0/E}$ access
SNG	Local Power Supply Unit
SPI bus	Serial Peripheral Interface (serial data bus)
TA	Terminal adapter: Adapter port (20-pin terminal strip)
TAPI	Telephony Application Programming Interface
$U_{P0/E}$	Trunk interface to the communication server (RJ 11)
UCON	Previous name for distance adapter

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