TELEDEX®

USB Charging Port

M SERIES
VoIP
USER GUIDE

For M100IP5, M100IP10, M100IPTRM, M200IP5, M200IP10, M200IPTRM, M103IP5, M103IP53, M103IP56, M103IP10, M103IP103, M103IP106, M103IPHDKT, M103IP3HDKT, M103IP6HDKT, M203IP5, M203IP53, M203IP56, M203IP10, M203IP103, M203IP106, M203IPHDKT, M203IP3HDKT, M203IP6HDKT

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Quick Start

After the phone boots-up and obtains the TFTP Server's IP address through a DHCP Server (DHCP Option 66), the phone will either download its config file as <macaddress>.cetis.cfg or produce a "doodle-doodle" sound to prompt the user to enter "Config ID" of form (<ConfigID>.cetis.cfg). After inputting ID through the numeric keyboard and ending with #, the phone will download the configuration file from the TFTP Server. If the download is successful, the phone will apply the configuration and re-boot. If it failed, 15 seconds later the phone will enter into default standby status and obtain an IP address. If you do not want to download a config file, you can press # directly for entering into the default standby status. If the download is not completed or the downloaded config file Auto Update Module has no config parameter in the Config File Name, the phone will still prompt inputting Config ID after the re-boot.

After the phone enters into the default standby status, pressing "**47#" key will make the phone recite and/or display its own IP address.

With that IP address, you may log in and check the configuration or begin programming the phone.

Function

1. Support DHCP assigns IP address, etc., automatically
2. Support PPPoE (used while connecting ADSL, cable modem)
3. It can update the program through HTTP, FTP, and TFTP
4. Check the dynamic voice; Soft the noise; Buffer technique of voice
5. Hold function
6. Speed-dial
7. DND (Do not disturb), black list, restricted list, hotline function
8. Voicemail message
9. Set through standard web browser
10. Remote management function
11. Classification management for common user's password and super-user's password
12. Support **codes function
13. Call waiting
14. Auto answer
15. Call park
16. Call transfer
17. Three-way conference
18. 802.1x authentication
19. LLDP feature

Standards and Protocols

- IEEE 802.3 /802.3 u 10 Base T / 100Base TX
- PPPoE
- DHCP Client and Server
- Support G.711a/u,G729, G723.1 audio Codec
- SIP RFC3261
- TCP/IP: Internet transfer and control protocol
- RTP: Real-time Transport Protocol
- RTCP: Real-time Control Protocol
- VAD save bandwidth
- TFTP: Trivial File Transfer Protocol

1. Introduction

This is the user manual for the Teledex M Series cordless SIP phone. The endpoint device is SIP 2.0 compliant with RFC 3261, and some configuration is necessary before using the phone. The base is connected via networking cable and powered via 802.3af PoE (Power over Ethernet). The handsets is a DECT radio device that synchronizes to the base. This manual will illustrate how to setup the phone through the keypad and web interface.

1.1 Overview of Hardware

1.1.1 BASE UNIT

The base unit has a WAN interface and LAN interface for a total of two network ports. The default WAN interface is a DHCP Client. The user will connect the WAN interface to a PoE switch to obtain power and an IP address, and connect the LAN interface to a computer to bridge the network or configure virtual LAN networks. The administrator username "admin" and password "admin" is used to login and configure the set via http web browser access. Only the WAN interface supports 802.3af Power Over Ethernet. The LAN port can be setup to mirror the WAN port for diagnostic troubleshooting or disabled entirely.

1.1.2 DECT HANDSET

The DECT handset is automatically synchronized to the base and operates at 1.9 GHz in North America and 1.8 GHz in many parts of Europe. The handsets auto-negotiate with the base through the charging leads on the base/cradle for seamless, secure cordless communications. Setting the handset (with connected battery) into the cradle (when powered by PoE) will synchronize the handset to the base.

1.2 Overview of Software

Network Protocol
• SIP v2(RFC3261) • IP/TCP/UDP/RTP/RTCP • IP/ICMP/ARP/RARP/SNTP • TFTP Client/DHCP Client/PPPOE Client • Telnet/HTTP Server • DNS Clients

Codec
• G.711a • G.711u: • G.723.1: • G.729

Voice Quality	
• VAD: Voice Activity Detection • AGC: Automatic Gain Control • AEC: Automatic Echo Cancellation • SRTP: Secure Real-time Transport Protocol	

Call Function	
• Call Hold	• Call Forward
• Call Waiting	• Caller ID

DTMF	
• IN Band	• SIP Info
• RFC2833	

Tone	
• Ring Tone	• Dial Tone
• Ring Back Tone	• Busy Tone

Phone Function	
• Volume Adjustment • Speed Dial Key	

IP Assignment		
• IP (Static IP)	• DHCP	• PPPoE

Security
• HTTP 1.1 Basic/Digest Authentication for Web Setup • MD5 for SIP Authentication (RFC2069/RFC2617)

QoS
• QoS Field

NAT Traversal
• STUN

Configuration	
• Web Browser	• Keypad

SIP Server
• Support two SIP servers working at the same time • Provide a backup SIP server

Firmware Upgrade		
• TFTP	• HTTP	• FTP

2. Keypad Setting

The SIP endpoint provides two different ways for setup configuration:

- By Keypad: to use the phone keypad to setup configuration, press the Menu key for 3 seconds, then press the VOL+ or VOL- key to navigate through the phone's current configuration.
  1. Submerged Menu key works as OK or Enter.
  2. Default password is 123.
  3. Submerged Enter key works as Exit to back out of the current menu.
  4. Mute key works to enter Edit mode to change the current parameters.
  5. VOL+ and VOL- work as direction keys to navigate up and down.
- By Web: to use a web browser to setup configuration. Press the key strokes **47# (** I P) #, and the phone will announce its IP address from the audio speaker. Input this IP address directly into the browser address field to login with admin/admin to phone web pages.

There are two access types to setup the phone's settings by web: guest mode and administrator mode. Administrator mode enables more advanced settings while guest mode enables only the general settings. The default password is:

	Username	Password
Guest mode	guest	guest
Administrator mode	admin	admin

2.1 Menu Catalog (Only for Phones with LCD)

When in on–hook status, press the Menu key underneath the faceplate on the base for 3 seconds to enter the phone menu. The menu content is as follows:

1. Screen Set
2. Ringer Set
3. Volume
4. Advanced
5. Reboot System
6. Factory Default

2.1.1 SCREEN SET

After entering the menu, use the VOL+ or VOL- key to choose Screen Set, then press the Menu key to enter the sub-menu. The sub-menu contains the following contents:

- Contrast
- Brightness
- Bright delay

Use the VOL+ or VOL- key to choose one of the three contents, then press the Menu key to enter the sub-menu. The LCD displays as follows:
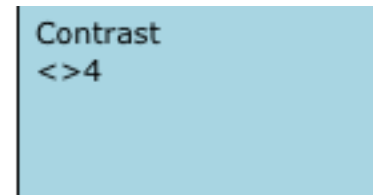
Then press the Mute key to enter edit status. The LCD displays as follows:
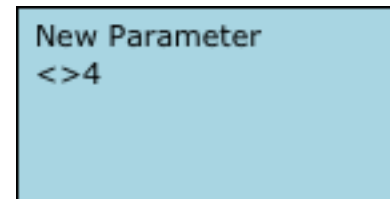
Press the VOL+ or VOL- key to increase or decrease the parameter value. After the parameter value is determined, press the Menu key to confirm, and press the Flash key to exit or return to the first-level menu.

After the parameters are configured, return to the main menu, and restart the phone, in order for the new values to take. Use the VOL+ or VOL- key

to choose Reboot System. Press Menu to confirm to enter this menu. The LCD displays as follows:

Reboot System?

Then press the Menu key to confirm to reboot the phone. After the phone reboots, all revisions will become effective. The following parameters' configuration method is the same as the above parameter editing method.

2.1.2 RINGER SET

- Ringer Volume
- Ringer Type

2.1.3 VOLUME

- Voice Volume

2.1.4 ADVANCED

- Set Password
- SIP Set
  1) SIP Server
  2) SIP Number
  3) SIP Account
  4) SIP Password
  5) SIP Register
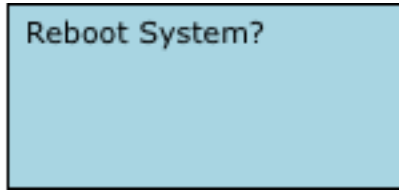- Network
  1) Net Mode
     a) Static
     b) DHCP
     c) PPPoE
  2) Static Set
     a) IP
     b) Netmask
     c) Gateway
     d) DNS

2.1.5 REBOOT SYSTEM

2.1.6 FACTORY DEFAULT

2.2 Understanding Buttons and Hardware

You can use this tables that follow to identify the buttons and hardware on your phone.

Base Keys Functions

Keys	Mode	Function/Display
Volume +	Calling	Increase volume
	Config	Choose page (page up)
Volume -	Calling	Reduce volume
	Config	Choose page (page down)
Message	Dialing	Pick up the voicemail message
Line1	Hook-on	Pick up
	Talking	Hold or resume
Line2	Hook-on	Pick up
	Talking	Hold or resume
Page	Hook-on	Press to call handset, press this key for 3 secs to register handset
Speaker	Talking	Between the handset and speaker switches
Mute	Talking	Mute function
Redial	Dialing	Redial the last number and make a call
Hold	Calling	Hold or resume or park key
M1~M7	Dialing	7 speed dial numbers or the second function
Menu	On-hook	Press this key to store number, press this for 3 seconds to enter the phone menu
	Config	Confirm/enter to the next sub-menu
Enter	Config	Exit /return to the first menu
1	Dialing	"1"
	Config	"1", "space", "@", "_", "-", "/", "%"
2	Dialing	"2"
	Config	"2", "a", "b", "c", "A", "B", "C"

3	Dialing	"3"
	Config	"3", "d", "e", "f", "D", "E", "F"
4	Dialing	"4"
	Config	"4", "g", "h", "I", "G", "H", "I"
5	Dialing	"5"
	Config	"5", "j", "k", "l", "J", "K", "L"
6	Dialing	"6"
	Config	"6", "m", "n", "o", "M", "N", "O"
7	Dialing	"7"
	Config	"7", "p", "q", "r", "s", "P", "Q", "R", 'S"
8	Dialing	"8"
	Config	"8", "t", "u", "v", "T", "U", "V"
9	Dialing	"9"
	Config	"9", "w", "x", "y", "z", "W", "X", "Y", "Z"
0	Dialing	"0"
	Config	"0", "*", "#", "$", "&", "?", "!", "<", ">"
*	Dialing	"*"
	Config	"*", "."
#	Dialing	Dial as the first number or finish number sign

Handset Keys Functions

Keys	Mode	Function/Display
Volume +	Talking	Increase receiver volume
	Hook-on	Increase ringer volume
Volume -	Talking	Reduce receiver volume
	Hook-on	Choose ringer volume
Line1 ON/OFF	Hook-on	Pick up
	Talking	Hold or resume
Line2 ON/OFF	Hook-on	Pick up
	Talking	Hold or resume
Redial	Dialing	Redial the last number and make a call
Hold/ Conf	Calling	Hold or resume or conference

FNC	Talking	Call transfer
	Hook-on	Press for 5 seconds to adjust the incoming call ringer types, use the number keys 1-6 to choose ringer type.
1	Dialing	"1"or press for 3 s to pick up voicemail message
	Config	"1", "space", "@", "_", "-", "/", "%"
2	Dialing	"2"
	Config	"2", "a", "b", "c", "A", "B", "C"
3	Dialing	"3"
	Config	"3", "d", "e", "f", "D", "E", "F"
4	Dialing	"4"
	Config	"4", "g", "h", "I", "G", "H", "I"
5	Dialing	"5"
	Config	"5", "j", "k", "l", "J", "K", "L"
6	Dialing	"6"
	Config	"6", "m", "n", "o", "M", "N", "O"
7	Dialing	"7"
	Config	"7", "p", "q", "r", "s", "P", "Q", "R", 'S"
8	Dialing	"8"
	Config	"8", "t", "u", "v", "T", "U", "V"
9	Dialing	"9"
	Config	"9", "w", "x", "y", "z", "W", "X", "Y", "Z"
0	Dialing	"0"
	Config	"0", "*", "#", "$", "&", "?", "!", "<", ">"
*	Dialing	"*"
	Config	"*", "."
#	Dialing	Dial as the first number or finish number sign

3. Operating Method for Dialing

3.1 How to Dial a Phone

You can place calls after the phone is successfully registered to a SIP server/IP-PBX. Please confirm that all cables for power and network connectivity are correct.

3.1.1 BASIC CALL

1. Place a call using the handset:
   Line1/Line2 is in off-hook status, and then dial a number; dial # as the ending character after the last digit to immediately send the digits to the SIP server.
2. Place a call using the speakerphone:
   The phone has an active keypad. That means pressing a number on the dial-pad will take Line 1 off-hook: dial the number, and then dial # as the ending character after the last digit to immediately send the digits to the SIP server.

3.1.2 HOLD AND RESUME

1. You can hold and resume calls. Only one call can be active at any given time; all other connected calls must be placed on hold.
   1) **Put a call on hold**
      Make sure the call you want to put on hold is enabled, then press the Hold key.
   2) **Resume a call from hold**
      Make sure the appropriate call is enabled, then press the Hold key or press the Line 1 or Line 2 key to resume the call on whichever line was on hold.
2. Call Park feature
   Enable Call Park feature and the Hold key can be used as a Park key (see below).

3.1.3 VOLUME CONTROL
Press VOL+ to increase the volume and press VOL- to decrease.

3.1.4 MUTE
If you do not want the called party to hear from your end of the line, press the Mute key; then they will not hear your conversation or background noise. You will still hear their conversation. This is often used while in conference calls.

3.1.5 MULTI-FUNCTION MEMORY KEYS
The speed dial memory keys have multiple modes of operation. They may also be used as hold, DND, transfer, and conference functions. See the web settings of the call feature function.
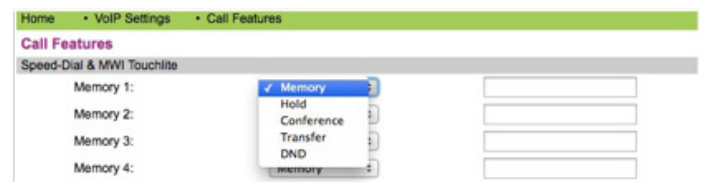
3.1.6 THREE-WAY CONVERSATION
If Line 1 is holding and Line 2 is talking on an active call, initiate a conference call by pressing the conference key connecting all three parties. When the phone is in three-way conference, the user cannot switch between base and handsets.

3.1.7 TRANSFER
The phone is capable of attendant transfers. For example: user A is conversing with user B. A wants to transfer the call conversation with B to user C. User A would press the transfer key (a speed dial programmed with transfer function) and call user C. After the call between user A and user C is connected, user A would press the Transfer key again to leave the call and finalize the transfer function to connect user B with user C.

3.1.8 CALL PARK
The Hold key can be configured to utilize a call park function. Call Park is essentially sending an active call to a place holder on the server where someone else can then retrieve the call from its

"Parking spot." Many PBXs have a Call Park and Call Retrieval special feature code.

Park is programmed in the phone under Call Features => Speed-Dial and MWI OneTouch sections. Set Park Mode: to Park | Hold Key Active: The parking place code or pilot number | Hold Key Idle: The retrieval from parking place code.

3.1.9 REDIAL
Press the Redial key to dial the last number called. The last number dialed will be erased after 15 minutes to protect guest privacy.

3.1.10 REGISTER HANDSET
The handset on the IP DECT phone is essentially a radio, and can register to the base in two ways: manual registration and automatic registration.

Manual registration: While on-hook, press the Page key on the base unit for three seconds to begin the handset registration mode. The Message indicator light will begin to flash. Press the * key for 3 seconds to register the handset, then you will hear a confirmation tone indicating a successful registration.

Automatic registration: Place the handset in the cradle of the base. The Message light begins to flash, indicating the handset is in register mode; the ON/OFF light on the handset flashes at the same time. If the handset registers successfully to the base, then the Message light on the base and the ON/OFF light on the handset will stop flickering and will give the prompt tone for a successful registration.

Note: Each base phone can register up to 5 handsets.

3.1.11 DELETE HANDSET
Keep pressing the Enter key on the base unit for 3 seconds. The Speaker will give a beep sound, then

Press "0" on the base unit to delete all the handsets from that base unit.
Press "1" on the base unit to delete the first handset from that base unit.
Press "2" on the base unit to delete the second handset from that base unit.
Press "3" on the base unit to delete the third handset from that base unit.
Press "4" on the base unit to delete the fourth handset from that base unit.
Press "5" on the base unit to delete the fifth handset from that base unit.

After the number key is pressed the Charge indicator light flashes, which means the handset is being deleted by the phone. When the Charge indicator light stops flashing, the deletion is complete.

3.1.12 SWITCH BETWEEN BASE AND HANDSET
When a call is active on the base phone, press the Line 1 or Line 2 handset key and the handset will pick up the active call. If a call is active on the handset, press the Line 1 or Line 2 key on the base to switch the conversation to the base.

3.1.13 SWITCH BETWEEN LINE 1 AND LINE 2
When Line 1 is on Hold and Line 2 is active, press the Line 1 key, and Line 1 will no longer be on Hold—Line 2 is now on Hold. If Line 2 is on Hold and Line 1 is active, press the Line 2 key for Line 2 to resume and for Line 1 to be placed on Hold.

3.1.13 BASE PHONE AND CORDLESS HANDSET CAN MAINTAIN INDEPENDENT CONVERSATIONS
The base phone and the cordless handset can maintain conversations independently, with true two-line functionality. For Example: Line 1 can place a call from the base phone to one phone destination while Line 2 from the cordless handset can be active to a separate destination.

4. Web Interface Settings

Connect both the phone and your PC on the same LAN (Local Area Network), open the browser and enter the IP address of the Phone. The browser will ask you to enter the username and password. Please enter the username and password as administrator to login.

There are two access types to setup the SIP Phone through the web interface: guest mode and administrator mode. Administrator mode enables more advanced settings while guest mode enables only the general settings. The default password is:

	Username	Password
Guest mode	guest	guest
Administrator mode	admin	admin

4.1 Home Page—Summary of Network Parameters

After entering the username and password as administrator, the following screen is displayed:

4.2 Network Settings

You can get your network information from this page:

4.2.1 WAN SETTINGS

WAN port network settings page. Supports static IP, DHCP (to obtain dynamic IP address), and PPPoE.

4.2.2 BASIC SETTINGS

Basic Setting

Network Mode	Select WAN port network mode. Default is DHCP.
Device Name	Set your Phone's name.
Domain Name	Set your Phone's domain name.
Primary DNS	Set the primary DNS IP address.
Secondary DNS	Set the secondary DNS IP address.

4.2.3 DHCP

If there is a DHCP server in your local network, the phone will automatically obtain WAN port network information from your DHCP server.

4.2.4 STATIC IP SETTINGS

If you wish to set the phone to a static IP address, configure the IP address, domain name servers, subnet mask, and gateway here.

Static IP Setting (Required if Network Mode Is Set to Static IP)

Static IP Address	Set static IP address.
Subnet Mask	Set network mask of static IP.
Default Gateway	Set default gateway IP address of static IP.

4.2.5 PPPoE SETTINGS

PPPoE Setting (Required if Network Mode Is Set to PPPoE)

User Account	Set your PPPoE user account.
Password	Set the password of your PPPoE account.
ISP Name	Set your ISP name. (Optional)
LCP Echo Interval	Set LCP echo interval time. Range from 10–3600 seconds.

4.2.6 802.1x SETTINGS

802.1x Settings

802.1x_Enable	Enable or disable 802.1x authentication
802.1x_UserName	80.21x User name
802.1x_Password	802.1x Authentication password

4.2.7 LLDP SETTINGS

LLDP Settings

LLDP Enable	Enable or disable LLDP feature

LLDP-MED (Link Layer Discovery Protocol-Media Endpoint Discovery) is a vendor-neutral link layer protocol in the Internet Protocol Suite used by network devices for advertising their identity, capabilities, and neighbors on an IEEE 802 local area network, principally wired Ethernet. LLDP-MED is enabled by default on the phone and is used to help the phone navigate to the correct VLAN. If properly configured on the L2 switch, the phone should arrive on the VLAN segment it is directed to. Once on the correct VLAN, the phone will try to obtain an IP address via DHCP.

Notice: If user accesses the IP phone through WAN port. She/he should use the new IP address to access the IP phone when the WAN port address was changed.

4.2.8 LAN SETTINGS

The LAN port is configurable: the LAN port can be mirrored to send all of the data flowing through the WAN port to a tool like wireshark for

diagnostic troubleshooting. The LAN port can be disabled entirely.

4.3 VoIP Settings

You can get your SIP account information and registration status from this page.

4.3.1 PRIMARY REGISTER

You can set up your SIP account on this page.

Register

Register Server	
Enable	Enable or disable this SIP account. Default is Disabled.

Display Name	Set display name of your SIP account.
Register Server Address	Set register server's IP address or domain name.
Register Server Port	Set register server's port number. Default is 5060.
User Name	Set user name (SIP account number).
Password	Set password of your SIP account.
Authorization User Name	Set authorization user name of your SIP account.
Domain Realm	Set server authentication realm.
Outbound Proxy	
Same as Register Server	Set if your service provider has different proxy server from register server. Most of the service providers use the same address for both servers.
Enable Outbound Proxy	Enable or disable outbound proxy function. Default is On.
Proxy Address	Set proxy server's IP address or domain name.
Proxy Port	Set proxy server's port number.
User Name	Set user name of proxy server.
Password	Set password of proxy server account.
Protocol Control	
Protocol Edition	Support RFC.3261 (SIP 2.0).
DTMF Mode	Select DTMF mode. Choices can include RFC2833, In Band, and SIP Info. Default is RFC2833.
User Agent	Set user agent; empty for default value.
Detect Interval	Set detect interval time. The unit is a second. Default is 120.
Register Expire	Set register expire time. The unit is a second. Default is 120.

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Message Waiting Indication	Set Disable/Enable message waiting through pull-down menu, including: Disable: MWI is disabled, even if received NOTIFY message from the server indicating new voicemail, phone will not prompt. Enable (Subscribe): MWI is enabled and SUBSCRIBE will be sent, if the server sends NOTIFY message indicating new voicemail received, MWI LED will blink to prompt. Enable(No Subscribe): MWI is enabled, but phone will not send SUBSCRIBE, if the server sends NOTIFY message indicating new voicemail received, MWI LED will also blink to prompt.
Subscribe Expire Time	Config the time of sending subscription message. Each interval time is sending a subscription message. Used mainly to subscribe to other's state or voice message.
Local SIP Port	Set local SIP port number. Default is 5060.
Local RTP Port	Set local RTP port number. Default is 12345.
Transport	UDP/TCP transmission mode.
DNS Type	DNS type: A request, DNS SRV, NAPTR+SRV.
rport	Open or close the rport mechanism.
IPv6, Not IPv4	Enable or disable IPv6.
PRACK	Enable or disable PRACK.

4.3.2 AUDIO SETTINGS

You can adjust sound and volume settings, set codecs and ring types and international signal standards on this page.

Audio Setting

Sound and Volume Control	
VAD	Enable or disable Voice Activated Detector function. VAD can reduce RTP data to not send silence packet. Default is Enabled.
AGC	Enable or disable Automatic Gain Control function. AGC can keep constant voice volume. Default is Enabled.
AEC	Enable or disable Automatic Echo Cancellation function. AEC can improve voice quality. Default is Enabled.
Handset	Set output volume of handset. Ranges from 1–8. Default is 4.
Speaker	Set output volume of speaker. Ranges from 1–8. Default is 4.
Ring Tone	Set volume of ring tone. Ranges from 1–8. Default is 5.
Ringer	Select ringer type.
Codec Setting	
Codec #1–4:	Prioritize the codec selections, there are four choices: • G.711a • G.711u • G.729 • G.723.1
G.723.1 High Rate	Enable or disable G.723.1 high rate.

Audio Frame	Set number of voice packets in one RTP frame.
Signal Standard	Select signal standard. There are 17 countries' standards from which to choose.
Default Ring Type	There are 7 kinds of ring tones from which to choose. Default is type 0.

4.3.3 CALL FEATURES

You can set call features, create blocked and/or restricted lists on this page.

Call Feature

Field Name	
Mem1–Mem7	1. Input speed dial number. OR 2. Configure the second feature: every memory key can be set as a feature key to HOLD, DND, transfer, or initiate a conference.
MWI OneTouch	Input voice mail number.

Hold Key Active	Configure the number of the Park key. In Park mode, if a call is active on either line, press the Hold key to actively call the parking slot number. This is a feature to place a call into a parking slot on the PBX if the PBX is capable of that feature.
Hold Key Idle	Configure the number of the Park key. In Park mode, if no call is active and a line is available, execute Idle by pressing the Hold key. Hold will call the programmed number (usually to retrieve a call in a parked state).
Park Mode	Enable or disable park mode.
Hotline Mode	Enable or disable the hotline function.
Hotline Number	Program a hotline number for immediate dialing when off-hook.
Warm Line Time	Set waiting time for the user picking up the phone to dial hotline number, the setting range is 0–9s, default is 0s. If warm line time is 0s, then hotline number will be sent right away after off-hook. If the range is 1–9s, take 3s as an example, the hotline number will be sent 3s later automatically without pressing any key. As long as any key is pressed within that setting time, the timer will be suspended and the hotline call will fail.

Call Forward	Select the type of call forward: default is OFF. OFF: Disable call forward. Busy: If the phone is busy, it will forward to the appointed phone. No answer: If no answer, it will forward to the appointed phone. Always: The caller is always forwarded to the appointed phone.
Forward Phone Number	Call the forwarded phone number.
No Answer Timeout	No answer call forward time setting.
Call Waiting	Enable/disable Call Waiting.
Do Not Disturb	Enable this option to refuse any calls.
Black List	Set black list of numbers not to be accepted.
Restricted List	Set restricted list of numbers not to be dialed.

In the Blocked List section of the web page, click ADD to add a blacklisted number from which you do not want to receive calls:

Modify means edit or revise; Remove means delete the number which was added.

In the Phone Number file input a number to be blocked, then click Apply.

In the Restricted List page, click ADD to input a restricted number that can not be dialed from the phone:

After Phone Number input a number which is not to be dialed, then click the Apply button.

4.3.4 DIALING RULES

You can manage your dial rules on this page. You can remove the option of sending digits immediately by pressing the # key. It is also possible to set the timeout from when the user stops dialing until the digits transmit to the server (between 1 and 9 seconds).

Digital Map Configuration

Field Name	Description
Dialing Rules Configuration	Set dial ending rule. There are three kind of rules: • End with "#". • Timeout: Set dial ending waiting time. The unit is second. Default is 5 seconds.
User Define Rules	Define your dial ending rule by prefix number and length.

4.3.5 ADVANCED SETTINGS

You can set NAT (Network Address Translation) traversal function on this page.

Advanced Setting

Field Name	Description
Enable	Enable or disable NAT (Network Address Translation) Traversal function. Default is disabled.
STUN Server Address	Set STUN server's IP address.
STUN Server Port	Set STUN server's port number.
Check Interval	Set check interval time. The unit is second.

4.4 QoS Settings (Quality of Service)/Virtual LAN (VLAN)

You can get your QoS information from this page and configure voice and data VLANs.

QoS Setting

Field Name	Decription
VLAN Enable	Enable voice VLAN. Default is disabled.
Tag VLAN Enable	Enable VLAN tagging. Default is disabled.
DiffServ Enable	Enable DiffServ. Default is disabled.

Regarding QoS and VLAN ID. In order to troubleshoot VLANs, you may use the QuickKeys from the dial pad of:

VL - **85# Show the VLAN ID.

VS - **87*<kp>*<vlan id>#

Set the VLAN ID. Use value of 0 to turn off/disable VLAN. Ex: * * 8 7 * 1 2 3 * 0 # will disable VLAN and should allow the phone to receive a DHCP address from the local network segment. Any

other valid number for a VLAN ID (1-4095) will set the VLAN ID to that number.

4.5 System Settings

You can set the phone's system information (syslog server, time, user management, and firmware updates) on these pages.

4.5.1 SYSLOG SERVER

Configure the Syslog Server on this page.

Syslog Server

Field Name	Description
Syslog Server	Enable or disable system log function. Default is disabled.
Server Address	Set system log server's IP address or domain name.
Server Port	Set system log server's port number. Default port is 49494, but is User Definable.
Events Only	Capture only significant events (eg: Registration Lost or IP address change or Reboot requested).
Events Plus Periodic Status	Capture events as well as a periodic status (as defined in the Interval) (Status update eg: Registered, Unregistered, Trying).
Interval	Interval from 30 seconds to 300 seconds to send information to the syslog server.

4.5.2 TIME SETTINGS

Time settings such as Dailight Savings Time and SNTP servers are configured on this page.

4.5.3 USER MANAGEMENT

Configure users' privileges and authentication on this page.

User Management

Keypad Password	
Keypad Password	Set the password of keypad. Default is 123.
Verify Password	Enter the new keypad password again for verification.
User Management	
Administrator User ID	Set the username of administrator mode. Default is "admin."
Administrator Password	Set the password of administrator mode. Default is "admin."
Verify Password	Enter the new password of administrator mode again for verification.
Guest User ID	Set the username of guest mode. Default is "guest."
Guest Password	Set the password of guest mode. Default is "guest."
Verify Password	Enter the new password of guest mode again for verification.

4.5.4 UPDATE FIRMWARE

Configure or execute firmware updates on this page.

Update Firmware

Through This Web Page	
Select File	Select the firmware file and press Update Now button to upgrade.
Through FTP/TFTP Server	
Server Type	Select TFTP or FTP server to upgrade firmware.
Server Address	Set server's address.
User Name	Set user name to update firmware.
Password	Set password to update firmware.
File Name	Set the firmware file name.

4.6 My Configuration

You can save or export configuration files, reboot the phone or reset to factory default settings on this page. The configuration file exports as phone.cfg. When editing these files to create templates, save the new config files using the naming convention of <ConfigID>.cetis.cfg or <mac address>.cetis.cfg.

My Configuration

System Action	
Save Configuration	Click Save button to save all the settings.
Reset Factory Default	Click Reset button to restore all the settings to factory default.
Reboot Device	Click Reboot button to reboot the phone.
Configuration Management	
Request ConfigID at Boot Time	Enabled by default, the phone will audibly request the user to input the number of the configuration file to retrieve (tftp server is default) and apply. The schema is ConfigID.cetis.cfg.
Request a MAC Address Named Configuration File at Boot Time	Enabled by default, the phone will automatically request it's MACADDRESS.cetis.cfg from the server (tftp server is default) and apply. The schema is MACADDRESS.cetis.cfg.
Configuration Version Number	Default Configuration version number is 2.1001. As time goes by and changes are made to the configuration file, (preferably in a uniform tool such as CetisConfigure), the version number will increment. Either the CetisConfigure will automatically increment, or the installer will need to do it manually. Every time a phone powers up or reboots, it will check to see if a newer (higher numbered) version is present, and if it is, it will apply the newer file as it's new configuration.
Export Configuration	Click Export button to export configuration to the file phone.cfg.
Import Configuration	Choose the configuration file and click Import button to import all setting.
Through FTP/TFTP Server	
Server Type	Select TFTP or FTP server to upgrade config file.
Server Address	Set server's address.
User Name	Set user name of server.
Password	Set password of server.
File Name	Set the firmware file name.

5. QuickKey Shortcuts

A number of "Quick Key" commands have been implemented for ease of maintenance and administration.

Each has a mnemonic which should make it easier to remember. In some cases, the command should be protected so the keypad password must be entered or the command will not be executed. In the descriptions below, the default keypad password <123> is represented as <kp>.

1. **47#, (** IP #) announce the phone's current IP address.

2. **39#, (** FW #) announce the telephone current software release number.

3. **85#, (** VL #) broadcast the telephone current VLAN ID.

4. **83#, (** TF #) broadcast the current TFTP server address.

5. **72#, (** RB #) reboot the phone.

6. **36#, (** DN #) broadcast the current DN/extension number.

7. **33*password#, (** DE*123 #) clear the phone current configuration, reset to default settings and reboot automatically.

8. **77*password*config ID#, the phone downloads a new specified configuration file from the TFTP server. After downloading successfully, ignoring the config file version number, the phone will restart automatically.

9. **87*password*VLANID#, (** VS*123*newVLAN #) revises the phone's VLAN ID; After revising VLAN ID successfully, announces the new VLAN ID, restarts the phone.
   Example: Set the VLAN ID. Use value of 0 to turn off/disable VLAN.
   Ex: * * 8 7 * 1 2 3 * 0 # will disable VLAN and should allow the phone to receive a DHCP address from the local network segment. Any other valid number for a VLAN ID (1-4095) will set the VLAN ID to that number.

10. **89*<keypad password>*<TFTP server IP address>*<ConfigID>#,
    Example: **89*<123>*<10 * 0 * 0 * 100>*<ConfigID>#,
    The phone downloads the specified configuration file <ConfigID> from the TFTP server at specified IP address (10.0.0.100). After downloading successfully, the phone will apply the file and restart automatically.

6. Reference—IP DECT Handset/Base AutoSync Registration

The **IP-DECT** cordless hospitality phones have a base station that is powered via POE 802.3af. The max power consumption is 3.5W, thus falling into the POE class spectrum of Class 2. The auxiliary handset stations are powered via standard electrical plugs.

AutoSync Handset Registration

Handsets can be registered most simply by performing AutoSync, which is to place the handset into the cradle and the pairing will happen automatically.

Register Up To 4 Additional Handsets

It is possible to register up to 4 additional remote handset kits to a single base station. Repeat the process above for three more handsets (LEAVE BATTERIES IN ALL HANDSETS).

Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug the product from the wall outlet before cleaning. Do not use liquid cleaner or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water—for example, near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or any other similar surface. This product should never be place near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
8. To reduce the risk of electric shock do not disassemble this product. Take it to a qualified service facility if service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
9. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
   – When the power supply cord or plug is damaged or frayed.
   – If liquid has been spilled into the product.
   – If the product has been exposed to rain or water.
   – If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as improper

adjustment of other controls may result in damage and may require extensive work by a qualified technician to restore the product to normal operation.

  – If the product has been dropped or the cabinet has been damaged.
  – If the product exhibits a distinct change in performance.

10. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

11. Do not use the telephone to report a gas leak in the vicinity of the leak.

PLEASE SAVE THESE INSTRUCTIONS.

FCC Interference Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

  – Reorient or relocate the receiving antenna for the radio or television that is receiving the interference).
  – Reorient or relocate and increase the separation between the telecommunications equipment and receiving antenna.
  – Connect the telecommunications equipment into an outlet on a circuit different from that to which the receiving antenna is connected.

FCC RF Radiation Exposure Statement

The installation of the base unit should allow at least 20 centimeters between the base and persons to be in compliance with FCC RF exposure guidelines. For body-worn operation, the portable part (handset) has been tested and meets FCC RF exposure guidelines.

This device must not be co-located or operating in conjunction with any other antenna or transmitter. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry of Canada Requirements

Note: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with

the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telephone communications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Notice: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

REN: Z

For warranty and service in Canada, please contact:

Williams Telecommunications
5610 Kennedy Road
Mississauga, Ontario, L4Z2A9
Canada
Phone: 905-712-4242
Fax: 905-712-1754

Requirements of Part 15— FCC Rules

Note: This equipment has been tested and found to comply with the limits for a Class B digital device,

pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Move the telephone away from the receiver.
2. Consult the dealer or an experienced radio/TV technician for help.

Any changes made by the user not approved by the manufacturer can void the user's authority to operate the telephone.

Requirements of Part 68— FCC Rules

This equipment complies with Part 68 of the FCC Rules and the requirements adopted by ACTA. On the bottom of this telephone is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company. The USOC Jack for this equipment is RJ11C.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by ACTA. A compliant telephone cord and modular plug are provided with this telephone. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is a part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this telephone causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact Teledex at (800) 462-9446. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

There are no user-serviceable parts contained in this equipment.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this product does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

This telephone is hearing aid compatible.

These telephone devices are intended for commercial use only, primarily in hotel guestrooms. They must be used with a PBX (private branch exchange), and are not intended to be connected directly to a PSTN line (public switched telephone network). There are no user-serviceable parts inside the equipment.

Technical Specifications

DIMENSIONS

5.8″ (w) x 8.56″ (l) x 3.64″ (h)

WEIGHT

With handset: 3.3 lbs.

User Guides

If additional User Guides are needed, please go to www.teledex.com to download the PDF.

Service

When problems arise that cannot be resolved using this or related documents, please go to www.teledex.com/support for information about customer support, technical support, warranty, and product returns.

Statement of Limited Warranty

Teledex product warranty information is available at www.teledex.com.

Toll Free: +1.800.462.9446
Tel: +1.719.638.8821

Email: info@teledex.com
www.teledex.com

TDX-M-VoIP-UG-102016