



# Administrator Guide **TANDBERG E20**

Software version TE 2.1

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## Chapter 1

# Introduction

Thank you for choosing TANDBERG!

Your TANDBERG E20 has been designed to give you many years of safe, reliable operation.

This part of the TANDBERG E20 documentation is aimed at administrators working with the deployment and provisioning of the E20.

Our main objective with this Administrator Guide is to address your goals and needs. Please let us know how well we succeeded!

We recommend you visit the TANDBERG web site regularly for updated versions of this Administrator Guide.

This can be found on <http://www.tandberg.com/docs>



## Intellectual Property Rights

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### Disclaimer

The specifications for the Products and the information in this document are subject to change at any time, without notice, by TANDBERG.

Every effort has been made to supply complete and accurate information in this Administrator Guide, however, TANDBERG assumes no responsibility or liability for any errors or inaccuracies that may appear in this document

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## Patent Information

The products described in this manual is covered by the following patents:

US7,010,119,  
US,7,327,785 - US7,295,613 - US7,283,588  
EP01953201 - GB1338127

An updated list of the patents applying can be found on  
[www.tandberg.com/tandberg\\_pm.jsp](http://www.tandberg.com/tandberg_pm.jsp).

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## Safety Instructions

For your protection please read these safety instructions completely before you connect the equipment to the power source. Carefully observe all warnings, precautions and instructions both on the apparatus and in these operating instructions. Keep this manual for future reference.

### Water and Moisture

Do not operate the apparatus under or near water—for example near a bathtub, kitchen sink, or laundry tub, in a wet basement, near a swimming pool or in other areas with high humidity.

- Never install jacks for communication cables in wet locations unless the jack is specifically designed for wet locations.
- Do not touch the product with wet hands.

### Cleaning

Unplug the apparatus from communication lines, line power-outlet or any power source before cleaning or polishing. Do not use liquid cleaners or aerosol cleaners. Use a lint-free cloth lightly moistened with water for cleaning the exterior of the apparatus.

### Ventilation

Do not block any of the ventilation openings of the apparatus. Never cover the slots and openings with a cloth or other material. Never install the apparatus near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not place the product in direct sunlight or close to a surface directly heated by the sun.

### Lightning

Never use this apparatus, or connect/disconnect communication cables or power cables during lightning storms.

### Dust

Do not operate the apparatus in areas with high concentration of dust.

## Vibration

Do not operate the apparatus in areas with vibration or place it on an unstable surface.

## Power Connection and Hazardous Voltage

The product may have hazardous voltage inside.

- Never attempt to open this product, or any peripherals connected to the product, where this action requires a tool.
- This product should always be powered from an earthed power outlet.
- Never connect attached power supply cord to other products.
- In case any parts of the product has visual damage never attempt to connect main power, or any other power source, before consulting service personnel
- The plug connecting the power cord to the product/power supply serves as the main disconnect device for this equipment. The power cord must always be easily accessible.
- Route the power cord so as to avoid it being walked on or pinched by items placed upon or against it. Pay particular attention to the plugs, receptacles and the point where the cord exits from the apparatus.
- Do not tug the power cord.
- If the provided plug does not fit into your outlet, consult an electrician.
- Never install cables, or any peripherals, without first unplugging the device from its power source.

## Servicing

- Do not attempt to service the apparatus yourself as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel.
- Unplug the apparatus from its power source and refer servicing to qualified personnel under the following conditions:
  - If the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the apparatus.
  - If objects have fallen into the apparatus.
  - If the apparatus has been exposed to rain or moisture
  - If the apparatus has been subjected to excessive shock by being dropped.
  - If the cabinet has been damaged.
  - If the apparatus seems to be overheated.
  - If the apparatus emits smoke or abnormal odor.
  - If the apparatus fails to operate in accordance with the operating instructions.

## Accessories

Use only accessories specified by the manufacturer, or sold with the apparatus.

## Communication Lines

Do not use communication equipment to report a gas leak in the vicinity of the leak.

## Environmental Issues

Thank you for buying a product which contributes to a reduction in pollution, and thereby helps save the environment. Our products reduce the need for travel and transport and thereby reduce pollution.

Our products have either none or few consumable parts (chemicals, toner, gas, paper).

TANDBERG's Environmental Policy Environmental stewardship is important to TANDBERG's culture. As a global company with strong corporate values, TANDBERG is committed to following international environmental legislation and designing technologies that help companies, individuals and communities creatively address environmental challenges.

TANDBERG's environmental objectives are to: Develop products that reduce energy consumption, CO<sub>2</sub> emissions, and traffic congestion.

- Provide products and services that improve quality of life for our customers.
- Produce products that can be recycled or disposed of safely at the end of product life.
- Comply with all relevant environmental legislation.

## Digital User Guides

TANDBERG is pleased to announce that we have replaced the printed versions of our user guides with digital versions available on the TANDBERG web site: <http://www.tandberg.com/docs>. The environmental benefits of this are significant. The user guides can still be printed locally, whenever needed.

## European Environmental Directives

As a manufacturer of electrical and electronic equipment TANDBERG is responsible for compliance with the requirements in the European Directives 2002/96/EC (WEEE—Waste Electrical and Electronic Equipment) and 2002/95/EC (RoHS).

The primary aim of the WEEE Directive and RoHS Directive is to reduce the impact of disposal of electrical and electronic equipment at end-of-life. The WEEE Directive aims to reduce the amount of waste electrical and electronic equipment sent for disposal to landfill or incineration by requiring producers to arrange for collection and recycling.

The RoHS Directive bans the use of certain heavy metals and brominated flame retardants to reduce the environmental impact of WEEE which is in landfill or incinerated. TANDBERG has implemented necessary process changes to comply with the European WEEE Directive (2002/96/EC) and the European RoHS Directive (2002/95/EC).

## Waste Handling

In order to avoid the dissemination of hazardous substances in our environment and to diminish the pressure on natural resources, we encourage you to use the appropriate recycling systems in your area. Those systems will reuse or recycle most of the materials of your end of life equipment in a sound way.



TANDBERG products put on the market after August 2005 are marked with a crossed-out wheeled bin symbol that invites you to use those take-back systems.

Please contact your local supplier, the regional waste administration or visit our web page <http://www.tandberg.com/recycling> if you need more information on the collection and recycling system in your area.

## Information for Recyclers

As part of compliance with the European WEEE Directive, TANDBERG provides recycling information on request for all types of new equipment put on the market in Europe after 13 August 2005.

Please contact TANDBERG and provide the following details for the product for which you would like to receive recycling information:

- Model number of TANDBERG product
- Your company's name
- Contact name
- Address
- Telephone number
- E-mail.

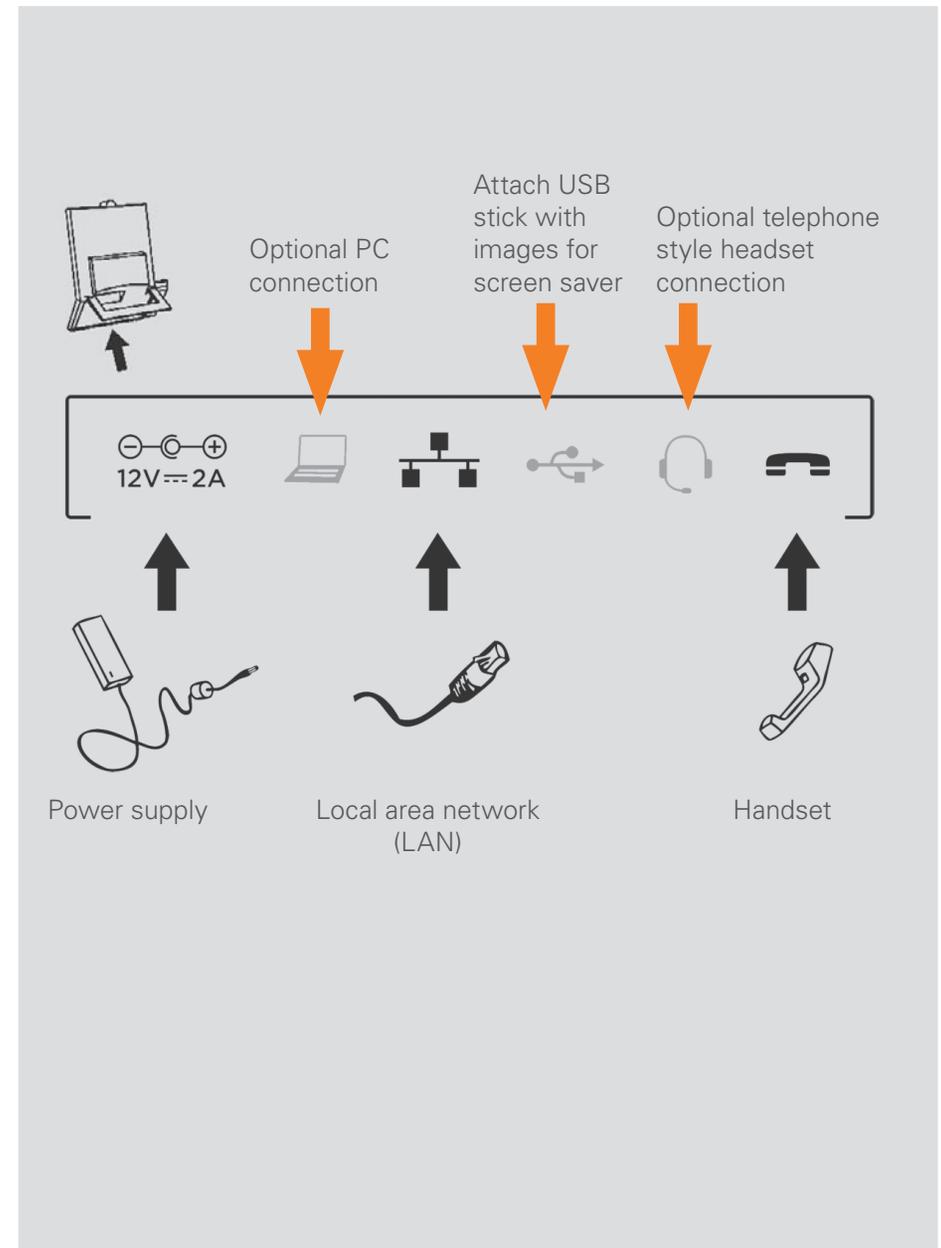


## Chapter 2

# Deploying E20

## Connecting the E20

Connect the cables as shown. If you have one LAN connection only, and need that for your PC, the E20 has a built in Gigabit ethernet switch that enables you to connect your PC to the E20 to access the LAN through the E20.



## Deploying the E20

There are four ways of deploying the E20:

- By using the Assistant
- By using the keypad
- By logging into the unit from a remote PC
- By using HTTP Bootstrapping

This page explains how to set up the unit using the Wizard, while the alternatives are explained on the following pages.

## Using the Assistant to configure E20

1. When you start the E20 the first time you will be prompted to choose the language to be used in the menus and dialog boxes.
2. Once the language has been selected, the E20 will configure the correct language and a provisioning assistant will pop up.
3. The Assistant will help you configure the E20 with the correct parameters. Observe that TANDBERG has defined a set of DHCP options. The E20 will pick up these settings if they have been set by your *network administrator*.
4. The Assistant supports different provisioning or configuration schemes. TANDBERG VCS (TMS 12.5) is the default scheme and is the only provisioning scheme fully supported by the E20. The other schemes will only allow the E20 to be easily configured using a core set of configuration parameters. You will be prompted to supply username, password, domain, and external manager address.

**Configure your TANDBERG E20**

Infrastructure: TANDBERG VCS

Username:

Password:

Domain:

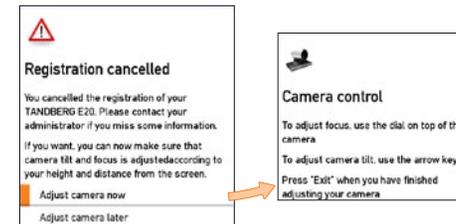
External Manager:

OK  
 Cancel

TANDBERG VCS

- Alcatel
- Avaya
- Cisco
- HTTP
- DCS
- Nortel
- Siemens
- Other

5. Once you have completed the fields and selected the register button, the E20 will contact the external manager and try to provision the device. You will be notified whether the registration process succeeds or fails. In case of failure to connect successfully, you may rectify the parameters and try again or you may choose to cancel the registration process.
6. Regardless of successful registration or not, the next step of the wizard will be to adjust the camera. Note that camera adjustment is optional at this stage—you may choose to do this later.



7. For the other configuration schemes, you will have to supply username, password, the SIP proxy and the SIP URI. In all other respects, the Assistant is similar.

**Configure your TANDBERG E20**

Infrastructure: Other

URI:

Username:

Password:

Proxy Address:

OK  
 Cancel

8. HTTP configuration will enable the E20 to download configuration documents using HTTP/HTTPS.

**Configure your TANDBERG E20**

Infrastructure: HTTP

Username:

Password:

External Manager:

External Manager Path:

OK  
 Cancel

## Using the keypad to configure the E20

There are several ways of setting up the E20. This page explains how to set up the unit using the keypad only, while how to set it up from a remote PC is explained on the next page.

Press the **HOME** key to produce the **Home** menu and navigate down to **Settings**. Press the **RIGHT ARROW** key to produce the **Settings** menu and navigate down to **Advanced**. Press the **RIGHT ARROW** key.

Finally navigate down to **Advanced configuration** and press the **RIGHT ARROW** key again. Navigation like this will hereinafter be shown as **Settings > Advanced > Advanced configuration**.

1. Navigate to **SystemUnit > Name** and press **OK**.  
Select a name that is unique to avoid conflicts. We recommend that you use your name or initials, eg. AliceWonderland. This name will be seen as you by the others.
2. In most cases DHCP will be used for assignment:  
Go to the previous menu—the **Advanced** (use **LEFT ARROW** key) and navigate to **IP Settings > IP Assignment**, if the cursor is not there already. Press **OK** and set to **DHCP**.  
Alternatively, set it to **Static** and enter the **IP address**, **Subnet Mask** and **Gateway IP address**.
3. For remote administration the below settings are recommended. This should also make the system visible in TMS.  
In the **Settings > Advanced > Advanced configuration > Provisioning > ExternalManager** set **Address**, **Protocol**, **Path**, **Domain** and **Mode**, which will be **TMS**, if used.
4. To be able to dial, you need to configure the SIP settings. In the **Settings > Advanced > Advanced configuration > NetworkServices > SIP**, set **SIP Mode** to **Off** before doing anything else.

5. Go to **Settings > Advanced > Advanced configuration > SIP > Profile1**. Set **Default Transport** to **Auto** (which is the same as default), **Proxy1 Discovery** to **Manual**. You must also enter the IP address of the Proxy (Proxy is your PBX/VCS or OCS) and you must enter the URI of your E20. Set the **SIP Mode** back to **On**.
6. If your SIP Server/PBX uses user authorization you need to supply a user-id and password. This is done in **Settings > Advanced > Advanced Configuration > SIP > Profile1 > Authentication 1**.
7. You may want to use a TMS phonebook. If you have this and no entries are displayed after configuring, you must make sure that your unit is registered in TMS and a phonebook is assigned to your system.



Your TANDBERG E20 comes with no default administrator password set. This means that anyone with network access to the E20 can easily log onto the device with ssh.

We strongly recommend that you set up an administrator password by using the menu in **Settings > Advanced > Change password**.

## Setting up the E20 from a remote PC

First you should choose a name for your unit. Use a name that is unique to avoid conflicts. The recommendation would be to incorporate your name or initials, eg. AliceWonderland.

```
xConfiguration SystemUnit Name: "AliceWonderland"
```

Note that in most most cases DHCP will be used for assignment:

```
xConfiguration Network 1 Protocol: "IPv4"
```

```
xConfiguration Network 1 Assignment: "DHCP"
```

If not, you may want to set your IP network settings manually:

```
xConfiguration Network 1 IPv4 Address: "<Your-IP-Address>"
```

```
xConfiguration Network 1 IPv4 Gateway: "<Network-Gateway-IP-Address>"
```

```
xConfiguration Network 1 IPv4 Subnetmask: "<SubNet-mask>"
```

```
xConfiguration Network 1 DNS Domain Name: "<local domain names>"
```

```
xConfiguration Network 1 DNS Server 1 Address: "<DNS Server IP Address>"
```

For remote administration the following settings are recommended. This should also make the system visible in TMS.

```
xConfiguration Provisioning Mode: Tms
```

```
xConfiguration Provisioning ExternalManager Address: "<hostname of your tms server>"
```

```
xConfiguration Provisioning ExternalManager Protocol: Http
```

```
xConfiguration Provisioning ExternalManager Path: "tms/public/external/management/systemmanagementservice.asmx"
```

To be able to dial, you need to configure the SIP settings.

```
xConfiguration NetworkServices SIP Mode: On
```

```
xConfiguration SIP Profile 1 DefaultTransport: Auto
```

```
xConfiguration SIP Profile 1 Type: Auto
```

```
xConfiguration SIP Profile 1 Proxy 1 Discovery: Manual
```

```
xConfiguration SIP Profile 1 Proxy 1 Address: "<ip of your SIP server>"
```

```
xConfiguration SIP Profile 1 URI: "<your SIP URI>"
```

If your SIP Server/PBX uses user authorization you need to supply a user-id and password

```
xConfiguration SIP Profile 1 Authentication 1 LoginName: <your user-name>
```

```
xConfiguration SIP Profile 1 Authentication 1 Password: <password>
```

You may want to use a corporate TMS phonebook. If you have this and no entries are displayed after configuring, you must make sure that your unit is registered in TMS and a phonebook is assigned to your system.

```
xConfiguration Phonebook Server 1 ID: "default"
```

```
xConfiguration Phonebook Server 1 Type: "TMS"
```

```
xConfiguration Phonebook Server 1 URL: "<URL to your phonebook service>"
```

Should the system fail to respond to incoming calls, make sure that:

- The system is connected to line voltage
- The LAN cable is properly connected—see Connecting the E20 for details.



Your TANDBERG E20 comes with no default administrator password set. This means that anyone with network access to the E20 can easily log onto the device with ssh.

We strongly recommend that you set up an administrator password by using the menu in **Settings > Advanced > Change password**.

## HTTP Bootstrapping

There are situations where service providers prefer that users need not enter any information at all. Instead, they want the E20 to retrieve all the information necessary by itself—through pro-active behavior using HTTP or HTTPS.

The E20 will then typically contact a web service to get the information it needs to configure itself. This web service could include large databases enabling the E20s to do lookups based on specific device identifiers to retrieve provisioning information for specific E20 devices. The E20s will identify themselves to the web server using unique device identifiers such as serial number and Ethernet MAC address.

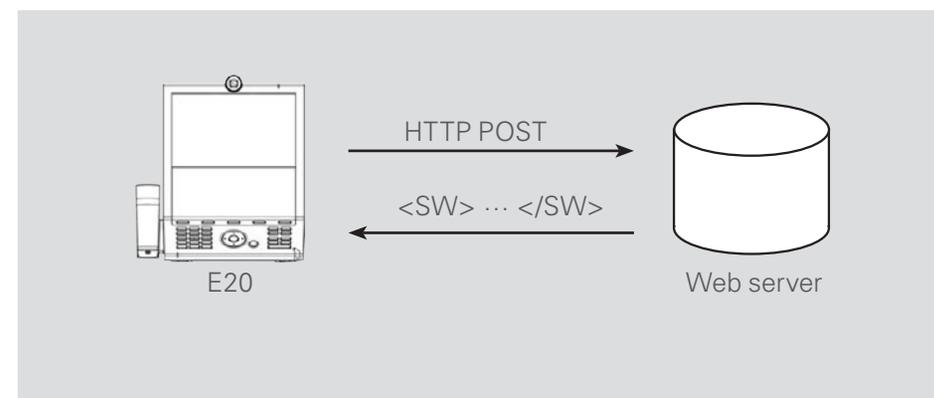
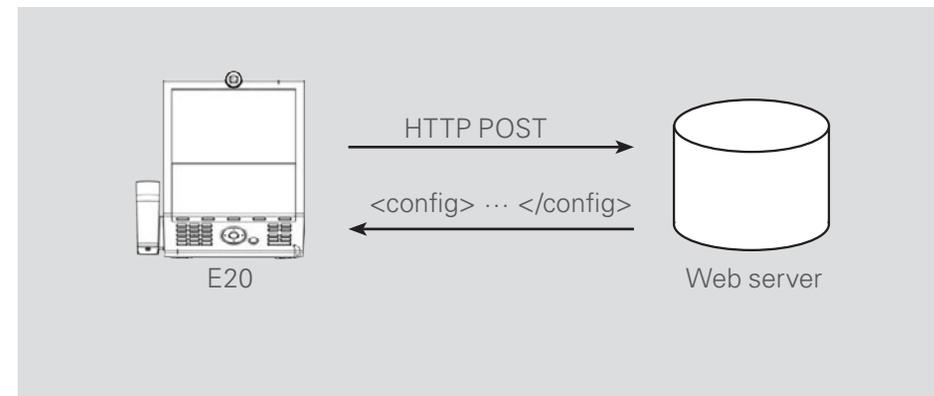
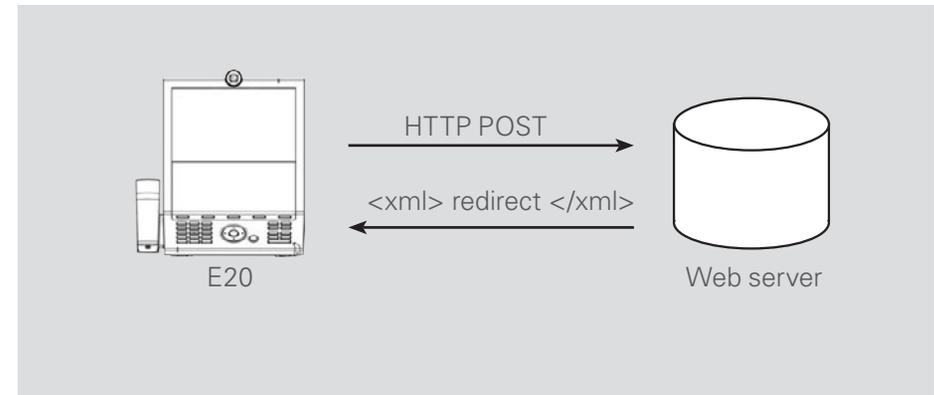
Since these identifiers are unique, they will enable the web server to convey targeted provisioning details to the specific E20 requesting the information.

For convenience, the system administrator or service provider may override a future global web service by setting up their own web service, if necessary.

This is possible through the use of different DNS names for the local and global web services. Overriding the global web service is possible for enterprises and service providers in control of their own DNS domain.

If you have no control of your own DNS domain, overriding the global web service will involve another party and therefore easily end up being more difficult.

Contact your local TANDBERG representative for more on this.





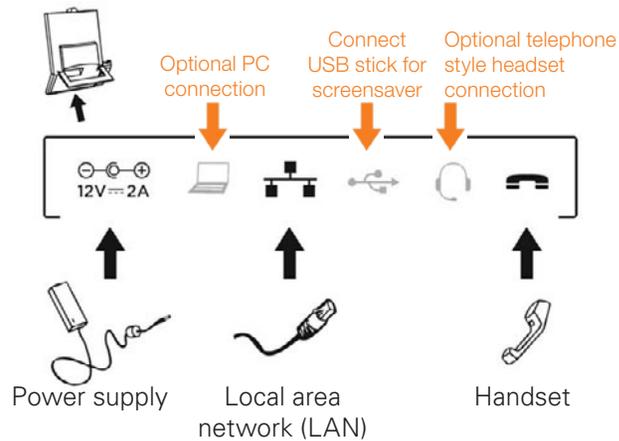
## Chapter 3

# Using E20

## Connecting the E20

**Optional PC connection:** If you have a single LAN wall outlet only, you may connect your PC to the PC -socket of the E20.

Your PC and the E20 will then share the LAN connection.



## Adjusting the E20 camera

Focus ring  
Privacy shutter open/close



Before you start making video calls, make sure that your picture is displayed properly.

1. Open the privacy shutter by turning the front ring of the camera.
2. Display your own picture by pressing the  key.
3. Adjust your picture vertically by using the **UP** and **DOWN**  key.
4. Adjust sharpness by turning the focus ring on the camera.

## The E20 keyboard

Softkey control buttons

Navigation keys and OK key

Show and hide main menu

This part is similar to, and works in the same way as, a telephone



Open the phone book

Display selfview (what others see from your system)

Switch your microphone on and off

Listen through headset



Listen to voice mail

For future applications

Switch your camera on and off

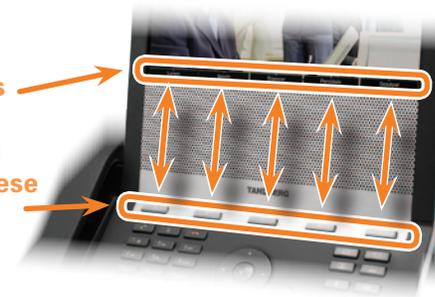
Listen through built-in speaker

Volume control

## Operating the softkeys

In the lower line of the display, context sensitive softkeys will appear to give you choices when operating the unit. Observe that these keys are operated by means of the upper row of keypad buttons as shown below.

The **softkeys** are operated using **these buttons**



## Navigation principles

### The following navigation principles apply:

- Press the  key to show the Main menu whenever no menu is shown. Press again to remove the menu.
- Use the up and down  keys to navigate inside a menu.
- Open a submenu by pressing  or the right  key.
- Repeat, if needed, if there are more submenu levels.
- Inside a submenu, press left  key to go one level back.
- Inside a menu, use the  key to close all submenus and go directly back to Main menu.
- When entering information in a text or number field, use the **C** key to delete inputs to the left of the current cursor position.
- To switch between numeric and alphanumeric setting use the **abc/123** softkey.
- The softkeys along the bottom of the screen are controlled by the Softkey buttons of the keypad.

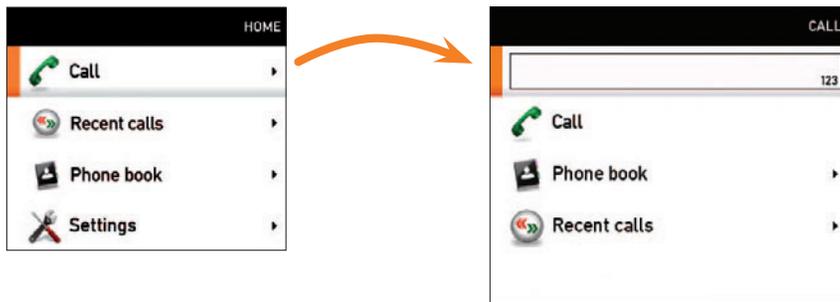
## Selfview

- Outside a call, to see what others see of you, press the  button.
- Use this image to see whether you need to adjust the camera tilt (described on the previous page), your distance to the phone and/or the lightning if required.
- Press again to remove the selfview image. Any wallpaper chosen will now be displayed.
- In a call, the selfview will appear as a picture-in-picture image.

## Calling someone by dialing their number

Dial the number directly and press . You can lift off the handset both before and after dialing.

Alternatively, just press  to show the **Call** menu, if needed. Position the cursor at  **Call** and press  to show the **Call** submenu:



Key in the "number" to call and press  twice to start calling.

While doing this you may need to switch to alphanumeric setting by means of the **abc/123** softkey. Activate **SPECIAL CHARACTERS**, if needed.

## Answering an incoming call

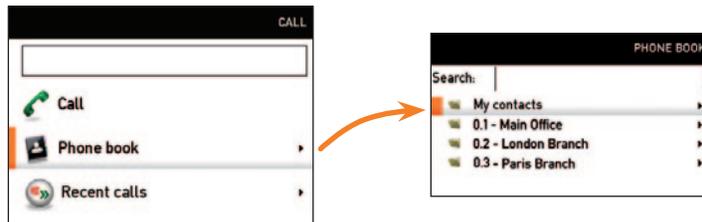
- Lift the handset to answer the incoming call. Put the handset back in its cradle to terminate the call.
- Alternatively, press  to answer an incoming call. The call will then use the built-in loudspeaker or your headset (if attached and selected).
- To reject an incoming call press .

## Switching between handset, loudspeaker and headset

- To switch from handset to loudspeaker *without* terminating an ongoing call, press the  button before putting the handset back in its cradle.
- To switch from loudspeaker to handset, just lift the handset.
- To switch between loudspeaker and headset, press the corresponding button ( and .

## Calling someone using the phone book

- Press  to show the phone book.
- Alternatively, just press  to show the **Call** menu, if needed. Position the cursor at  **Call** and press  to show the **Call** submenu.
- Use the  keys to navigate down to the **Phone book** and press  to open it.

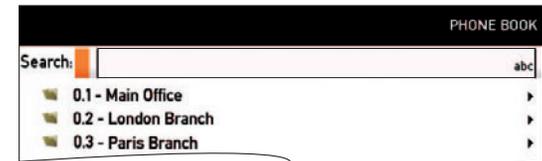


- Navigate down to the folder required and press  to show the contents of that folder. Use the  keys to locate whom to call and press  to place the call. If you do not know where to search, you may search for an entry in the phone book. This is described later.

## Searching in the phone book

To locate an entry in the phone book you may use *Quick Search by Letters*. At the top of any phone book page shown there is a *Search* field. To locate a specific entry, just type in the first letter as with a mobile phone. There is no need to press .

The search will take place within the current folder and within any subfolders existing, but not within folders higher up than your current location.

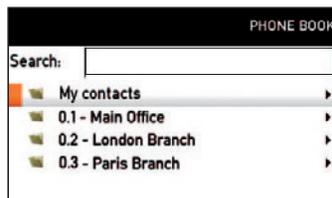


## Adding entries to My contacts

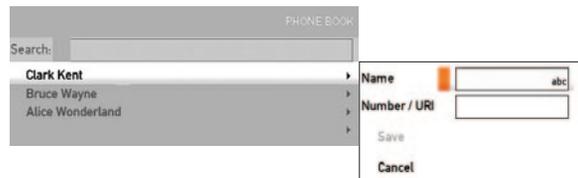
New contacts can be added manually to **My Contacts**. Entries in other folders, such as the corporate phone book must be made by your system administrator.

### Do as follows:

1. Open the Phone book
2. Navigate to My contacts:



3. Press  $\checkmark$  to enter My contacts and show the contents. Press the softkey **NEW CONTACT**. This will cause the **Add new contact** menu to be shown.



4. Enter Name and "Number" of the new contact
5. Navigate down to **Save** and press  $\checkmark$  to save the the new contact, or navigate to **Cancel** and press  $\checkmark$  to leave the menu without saving the new contact.

## Switching between two calls

When you are in a call you may put the other party on hold while you call someone else. You will then be in call with two parties, but only one at a time.

### Do as follows:

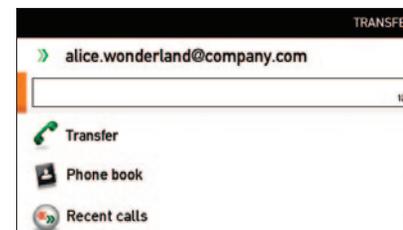
1. While in a call, press the softkey **HOLD**. The softkeys will now change to show you three options:
  - **RESUME** to go back the call you were in.
  - **TRANSFER** to transfer the other party to someone else, as described in *Blind transfer*.
  - **NEW CALL** to let you call someone else, while at the same time keeping the first party on hold.
2. By using the softkey that will toggle between **HOLD** and **RESUME** you may switch between talking to either party.

## Blind transfer

When you are in a call, you may transfer the other party to someone else, to let them communicate without your participation.

### Do as follows:

1. While in a call, press the softkey **TRANSFER**. This will bring up the following menu:



2. You may now key in the "number" to which the other party shall be transferred.  
Alternatively you may navigate down to the **Phone book** and search within this in the usual way, or you may enter **Recent calls** and select an entry there.
3. After the "number" has been located, proceed as if you were placing a call from the phone book in the usual way. The only difference is that the other party will be connected to the one you just called and you will be disconnected.

## Consultative transfer

You may also combine the two above options. Instead of just transferring the other party to someone else without consulting the one to receive the call, you may call this person first and then do the transfer.

Do as follows:

1. While in a call, press the softkey **HOLD**.
2. Press the softkey **NEW CALL** and place a new call in the usual way.
3. Press **TRANSFER**. You will now be prompted to decide whether this new call shall be transferred to the one you have on Hold or as blind transfer to someone else.

## Adding the screensaver of your choice

You may add a screensaver of your choice to the E20. You will need a USB disk containing the pictures you want to use as screensaver. If the USB stick contains multiple pictures, the contents will be shown as a gallery, one picture at a time.

### A few things to observe:

- Once you have plugged in the USB disk, the E20 will produce a dialog asking you whether the pictures on the USB disk should be displayed by the USB picture frame. TE 2.1 will read xcif data and even rotate images when necessary. The prompt will let you specify the time interval between the last time you operated (used) the E20 and when the screensaver should start to appear.
- The USB disk must remain connected to the E20 to make this work.
- The following file formats are supported:  
\*.bmp, \*.gif, \*.ico, \*.jpeg, \*.jpg, \*.mng, \*.pbm, \*.pgm, \*.png, \*.ppm, \*.svg, \*.tif, \*.tiff, \*.xbm, \*.xpm.

The E20 uses xcif information to scale the picture.

## Avoiding conflict with the standby function

There is a standby function in the E20. When activated, the standby function makes the screen go black after a time interval (delay) specified by you. This setting will override the screensaver feature.

To continuously display the screensaver, the standby function must be disabled.

You may, however, combine the two. Consider the following:

Assume that you specify the screensaver to start after 10 minutes and that you specify the standby to start after one hour. Five minutes after the last time you used your E20 (or pushed any button), the screensaver will start and it will then run for 55 minutes until the standby function starts.

## Multiple lines

TE 2.1 supports multiple lines. This means that it supports registration of multiple concurrent SIP profiles on the E20. Consequently, it is possible to be registered with more than one Address-Of-Record at the same time. The user can be reached through several SIP URIs at the same time and it is possible to call using a specified SIP profile. One example would be the use of a work (SIP-)profile for the home office and a private (SIP-)profile. Another example would be a secretary using both a personal (SIP-)profile and the (SIP-)profile for his/her boss.

There is one limitation to the multiple line support in the E20. In general, it is not possible to use different lines to different types of SIP servers (for example TANDBERG VCS vs OCS R2).

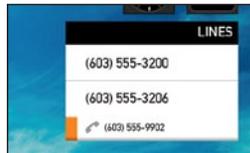
When dialing out from a system configured with multiple lines, you will need to select a line before making the call. The available lines will be shown in a multiple-line selection widget on the screen. The right-most softkey makes it possible to put focus on the multiple-line widget enabling you to select the preferred line.

## Example

TE 2.1 supports BroadWorks which is a software-based IP-PBX. You may provision the E20 using the BroadWorks provisioning system. In addition to supporting the BroadWorks provisioning scheme, TE 2.1 supports Shared Call Appearance, Click-to-dial, Push-to-talk. The former is a concept based on support for private and shared lines. Private lines are regular SIP-profiles similar to the line concept in TE 2.0 and earlier versions.

A shared line is a BroadWorks extension supported in TE 2.1. It means that several users (E20s with TE 2.1) can share a single line.

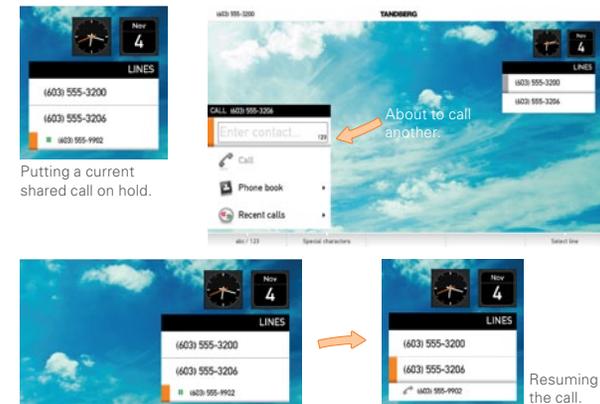
Whenever someone calls the shared line, all of the E20s configured with this shared line will start to ring. Whoever answers first will take the call. However, it is possible for other users of the shared line to barge-in and join the call.



Since Broadworks does not support video mixing in its current version, the joined call will be audio only. As soon as one of the users disconnects from the call, the video will be resumed.



It is also possible for one operator to put a shared line on hold and let another operator resume the same shared call on another E20.



**Click-to-dial** is a concept where a web-based call-control manager can be used to set up and tear down video calls between different devices. The most common use case would be for a user to call another user from his/her own E20.

**Push-to-talk** is a concept similar to a walkie-talkie where the calling user will press the call button to immediately be connected to the remote party.



## Chapter 5

# The Settings menu

## Description of the Settings available

On the following pages you will find a list of the settings available.

We recommend you visit the TANDBERG web site regularly for updated versions of the manual. Go to: <http://www.tandberg.com/docs>.

### To access the Settings, do as follows:

1. Press the  key to produce the menu. Use the  key to navigate down to **Settings** and press either  or use the  key to navigate to the right.
2. The menu contains the following topics:
  - Call settings
  - Language
  - Date and time
  - Sounds and alerts
  - Standby
  - Screen saver
  - System information
  - Advanced
3. Some of these menus have their own submenus. To navigate further down in the menu hierarchy press either  or use the  key to navigate to the right.
4. To go one or more steps back in the hierarchy, use the  key to navigate to the left, the required number of times.
5. To collapse all menus, press the  key.
6. To put a change into effect, press  as soon as the required setting has been selected or changed.

## The Settings

### Call settings

**Call forward** lets you forward all calls to a defined receiver. Just key in the identity and activate the feature.

**Auto answer** can be set to Off or On. When set to Off you must respond to an incoming call to accept it, either by lifting the handset or by pressing the  key. When set to On, the call is automatically accepted.

**Default bitrate** in calls can be set to 1152, 768, 512, 384, 256 or 128 kbps.

**Maximum upstream bitrate:** 1152, 768, 512, 384, 256 or 128kbps.

**Maximum downstream bitrate** 1152, 768, 512, 384, 256 or 128kbps.

The reason for allowing different upstream and downstream bitrate is to meet the need to specify different settings in asymmetric internet connections—typically when operating the E20 from home.

### Language

**Language** Currently you may choose between English, Norwegian, Swedish, German, French, Korean, Italian, Japanese, Russian, Spanish and Turkish. New languages are added on a regular basis.

### Date and time

**Date and time** can be set to either Manual or Automatic.

If set to Automatic the menu allows you to update Time zone, Date format and Time format only. When set to Manual you may change Day, Month, Year, Time upon 12/24 hrs, Date format and Time format.

### Sounds and alerts

**Ring tones** allow you to select between the ring tones available. Use the  key to navigate up and down as usual. You will hear the different ring tones as you move up and down.

**Ring volume** lets you set the volume of the incoming call signal. You will hear the level as you adjust.

**Key tones** let you determine whether you should hear a sound every time you press a key or not. Set to On to activate.

### Standby

There is a standby function in the E20. When activated the standby function makes the screen go black after a time interval (delay) specified by you. This setting will override the screensaver feature.

To continuously display the screensaver, the standby function must be disabled.

### Screen Saver

You may add a screensaver of your choice to the E20. You will need a USB disk containing the photos (illustrations) you want to use as screensaver. If the USB stick contains multiple pictures, the contents will be shown as a gallery, one picture at a time.

#### A few things to observe:

- Once you have plugged in the USB disk, the E20 will produce a dialog asking you whether the pictures on the USB disk should be displayed by the USB picture frame. TE 2.1 will read xcif data and even rotate images when necessary. The prompt will let you specify the time interval between the last time you operated (or used) the E20 and when the screensaver should start to appear.
- The USB disk must remain connected to the E20 to make this work.
- The following file formats are supported:  
\*.bmp, \*.gif, \*.ico, \*.jpeg, \*.jpg, \*.mng, \*.pbm, \*.pgm, \*.png, \*.ppm, \*.svg, \*.tif, \*.tiff, \*.xbm, \*.xpm

### System information

This is an information panel only, providing information on

- System name
- Uptime
- Network IP address
- SIP address

- SIP proxy address
- SIP status
- E20 software version
- Hardware Module serial number
- MAC address

When in a call the following is also provided:

- Remote URI
- Call rate
- Protocol
- Video protocol
- Video resolution
- Video channel rate
- Video Packet loss (in numbers and in %)
- Video Jitter
- Audio protocol
- Audio Channel rate
- Audio Packet loss (in numbers and in %)
- Audio jitter
- Encryption type
- Encryption status

### Bluetooth™

You may connect a Bluetooth™ headset to the E20. To do that, you have to turn the Bluetooth support in the E20 to **On** and set your Bluetooth device in pairing mode.

### Advanced

The Advanced settings are described in detail in the next chapter.

## Chapter 6

# The Advanced Settings



## Description of the Advanced Settings

On the following pages you will find a list of the settings available to administrators—known as the Advanced settings.

We recommend you visit the TANDBERG web site regularly for updated versions of the manual. Go to: <http://www.tandberg.com/docs>.

### To access the Advanced settings, do as follows:

1. Press the  key to produce the menu. Use the  key to navigate down to **Settings** and press either  or use the  key to navigate to the right.
2. Navigate down to **Advanced**.
3. To navigate further down in the menu hierarchy press either  or use the  key to navigate to the right.
4. To go one or more steps back in the hierarchy, use the  key to navigate to the left, the required number of times.
5. To collapse all menus, press the  key.
6. To put a change into effect, press  as soon as the required setting has been selected or changed.

## Speed dials

This menu lets you configure up to four speed dials that will be readily available from the E20 soft keys. Each speed dial can be set up to call a phone book contact. When you press a configured soft key, the E20 will call the corresponding contact immediately.

## IP settings

This menu lets you

- Set IP assignment to Static or DHCP

When set to Static, you should also define:

- IP address
- Subnet mask
- Gateway

## Advanced configuration

All items in this menu are expandable whenever they have a  sign to their left. To expand a menu item press the right arrow  key to navigate to the right.

All items in a menu item are collapsible whenever they have a  sign to their left. To collapse a menu press the left arrow  key to navigate to the left.

### Audio

The settings found here let you specify ring tone, ring volume, whether key tones should be audible or not and the volume of the handset, headset and the speaker. The three latter may be set individually.

#### Volume

**Handset** volume can be set to 0–100 in steps of 5.

**Headset** volume can be set to 0–100 in steps of 5.

**Speaker** volume can be set to 0–100 in steps of 5.

All these may be set individually (independent of each other).

#### Sounds and Alert

**Key tones** let you determine whether you should hear a sound every time you press a key or not. Set to On to activate.

**Ring tones** allow you to select between the ring tones available. Use the  key to navigate up and down as usual. You will hear the different ring tones as you move up and down.

**Ring volume** lets you set the volume of the incoming call signal. You will hear the level as you adjust.

### Camera 1

**Brightness** can be set to Auto or Manual which can be anywhere in the range 1–20 in steps of 1.

**Whitebalance** can be set to Auto or Manual which can be anywhere in the range 1–32 in steps of 2.

### CapsetFilterDebug

Not used in this version

### Conference 1

#### Autoanswer

**Mode** is set to On to enable automatic answer and to Off to require manual response to an incoming call.

**Delay** can be set anywhere in the range 0–50 seconds in steps of 2 seconds.

#### Do not disturb

**Do not disturb** can be set to On to disable incoming calls. The calling party will perceive your unit as being busy.

#### Encryption

**Encryption** can be set to Off (not recommended) or Best effort to let the system determine the best solution.

#### Default Call

**Rate** can be set in the range 64–1152 kbps.

## Call forward

**Mode** is set to On or Off. Set to On to forward all calls.

**URI** specifies whom the call will be forwarded to.

## TTY

**Mode** can be set to On or Off.

## FECC (Far End Camera Control)

**Mode** can be set to On or Off. Set to On this will enable you to control the far end camera position and zoom (provided that the far end system supports this)

## BFCP (Binary Floor Control Protocol)

**Mode** can be set to On or Off.

## Max upstream rate

This can be set in the range 64–1152 kbps.

## Max downstream rate

This can be set in the range 64–1152 kbps.

The downstream and upstream rates can be set independently of each other to facility good transmission in asymmetric connections.

## TelephonyPrefixExp

This parameter is used to set up regular expressions to force the E20 to set up an audio call when calling a peer with a number or URI that matches the regular expression given by this parameter.

## Experimental

### Video

**PacketPacing** On/Off/Auto

Experimental mechanism to smooth out packet burstiness.

## Menu

### CustomSoftButtons

This configuration option includes all the configuration parameters used by the speed dial mechanism. It is possible to configure all four speed dial buttons from here.

### Screensaver

You may add a screensaver of your choice to the E20. You will need a USB disk containing the photos (illustrations) you want to use as screensaver. If the USB stick contains multiple pictures, the contents will be shown as a gallery, one picture at a time.

**Available:** Indicates whether the picture frame is enabled or not

**PictureDirectory:** Not in use

**ChangePictureInterval:** Indicates how long each picture will be shown

**FillScreenMode:** Not in use

**OrderBy:** Not in use

**URLScreenSaver:** Experimental feature

A few things to observe:

Once you have plugged in the USB disk, the E20 will produce a dialogue asking you whether the pictures on the USB disk should be displayed by the USB picture frame. TE 2.1 will read xcif data and even rotate images when necessary. The prompt will let you specify the time interval between the last time you operated (or used) the E20 and when the screensaver should start to appear.

The USB disk must remain connected to the E20 to make this work.

The following file formats are supported:

\*.bmp, \*.gif, \*.ico, \*.jpeg, \*.jpg, \*.mng, \*.pbm, \*.pgm, \*.png, \*.ppm, \*.svg, \*.tif, \*.tiff, \*.xbm, \*.xpm

**EncryptionIndicator:** On/Off(Default)

This setting will control whether the encryption indicator that slides in from the right during call setup etc is visible or not.

If the value is Off, you will never see the indicator. This is the default behavior.

## Network 1

**IPv4** lets you specify Address, Gateway, Quality of Service with Diffserv (Differentiated Services) On or Off, and Subnet Mask.

**Assignment** can be DHCP or static

**DNS** allows you to specify name and the addresses of up to 5 servers.

**VLAN** Lets you decide which VLAN the E20 should be connected to or not. The VLAN feature is turned off by default.

**IEEE8021x** Allows you to set up IEEE 802.1x authentication for the E20. The 802.1x feature is by default turned off.

**Protocol** can be IPv4, IPv6 or both.

## Network services

### Telnet

Telnet is a network protocol used on the Internet or local area network (LAN) connections.

**On:** The Telnet protocol is enabled.

**Off:** The Telnet protocol is disabled. This is the default factory setting.

### HTTP / HTTPS / HTTP test certificate

Determines whether or not to use secure management.

**HTTP:** Set to HTTP to disable secure management. Requires HTTP to be enabled in the Network Services HTTP Mode setting.

**HTTPS:** Set to HTTPS to enable secure management. Requires HTTPS to be enabled in the Network Services HTTPS Mode setting.

**HTTPS test certificate:** Set to On or Off.

### SNMP (Simple Network Management Protocol)

Used in network management systems to monitor network-attached devices (routers, servers, switches, projectors, etc) for conditions that warrant administrative attention. SNMP exposes management data in the form of variables on the managed systems, which describe the system configuration. These variables can then be queried (set to ReadOnly) and sometimes set (set to ReadWrite) by managing applications.

### Community name

Enter the name of the Network Services SNMP Community. SNMP Community names are used to authenticate SNMP requests. SNMP requests must have a 'password' (case sensitive) in order to receive a response from the SNMP Agent in the codec. The default password is "public". If you have the TANDBERG Management Suite (TMS) you must make sure the same SNMP Community is configured there too. Note! The SNMP Community password is case sensitive.

### Host IP address

Enter the IP address of the SNMP Manager. All traps will then be sent to the host listed.

The system's SNMP Agent responds to requests from SNMP Managers (a PC program etc.). SNMP Traps are generated by the SNMP Agent to

inform the SNMP Manager about important events. Can be used to send event created messages to the SNMP agent about different events like: system reboot, system dialing, system disconnecting, MCU call, packet loss etc. Traps can be sent to multiple SNMP Trap Hosts.

### Mode

**Off:** Set to Off when you want to disable the SNMP network service.

**ReadOnly:** Set to ReadOnly when you want to enable the SNMP network service for queries only.

**ReadWrite:** Set to ReadOnly when you want to enable the SNMP network service for both queries and commands.

### System contact

Enter the name of the Network Services SNMP System Contact.

### System location

Enter the name of the Network Services SNMP System Location.

### SIP

Determines whether the system should be able to place and receive SIP calls.

**On:** Set to On to enable the possibility to place and receive SIP calls. This is the default setting.

**Off:** Set to Off to disable the possibility to place and receive SIP calls.

### NTP (Network Time Protocol)

The Network Time Protocol (NTP) is used to synchronize the time of the system with a reference time server. The time server will subsequently be queried every 24th hour for time updates. The time will be displayed on the top of the screen. The system will use the time to timestamp messages transmitted to Gatekeepers or Border Controllers requiring H.235 authentication. The system will use the

time to timestamp messages transmitted to Gatekeepers or Border Controllers that requires H.235 authentication. It is also used for timestamping Placed Calls, Missed Calls and Received Calls.

**Auto:** The system will use the NTP server, by which address is supplied from the DHCP server in the network. If no DHCP server is used, or the DHCP server does not provide the system with a NTP server address, the system will use the static defined NTP server address specified by the user.

**Manual:** The system will always use the static defined NTP server address specified by the user.

### Phonebook

**ID:** Enter a name for the external phonebook. Addresses the specific phonebook.

**Type:** Can be TMS (TANDBERG Management System) or VCS (Video Communication Server)

**URL:** Enter the address (URL) to the external phonebook server. Addresses the specific phonebook server.

### Provisioning

Provides the possibility of managing the E20 by using an external manager/management system.

#### External Manager

**Address:** Enter the name for the provisioning server.

**Protocol:** http or https

**Path:** Enter the path within the external manager to access the provisioning information (if http-based provisioning.)

**Domain:** Enter the domain of the provisioning server

## External manager Mode

**Off:** The system will not try to register to any management system.

**TMS:** If set to TMS the system will try to register with a TMS server as described in the address and path settings. TMS is short for TANDBERG Management System. Please contact your TANDBERG representative for more information.

**VCS:** If set to VCS the system will try to register with a VCS as described in described in the address and path settings. VCS is short for Video Communication Server. Please contact your TANDBERG representative for more information.

**HTTP:** If set, the E20 will try to download configuration from a web server. The URL is the concatenation of the External Manager address and the Path parameter. If the protocol is https, the E20 will use HTTPS during the download. If the HttpMethod parameter is POST, the E20 will do an HTTP post to the web server. Otherwise, it will do a HTTP Get to the web server. LoginName and password will be used if the web server requires username and password to download the configuration.

**Auto:** If set, the E20 will enter auto provisioning mode and look for both HTTP bootstrapping servers, VCS servers etc. This is the default mode.

## Login name

This is the user name part of the credentials used to authenticate towards the HTTP server when using HTTP provisioning.

## Password

This is the password part of the credentials used to authenticate towards the HTTP server when using HTTP provisioning.

## HttpMethod

Post/Get This configuration parameter indicates whether the E20 should use HTTP GET or HTTP POST when contacting the HTTP server during HTTP provisioning.

## SIP

### Profile 1-3

The SIP URI or number is used to address the system. This is the URI that is registered and used by the SIP services to route inbound calls to the system. A Uniform Resource Identifier (URI) is a compact string of characters used to identify or name a resource.

### Default transport

Select the transport protocol to be used over the LAN.

**UDP:** The system will always use UDP as the default transport method.

**TCP:** The system will always use TCP as the default transport method.

**TLS:** The system will always use TLS as the default transport method. For TLS connections a SIP CA-list can be uploaded using the web interface. If no such CA-list is available on the system then anonymous Diffie Hellman will be used.

**Auto:** For future use.

### TLS verify

For TLS connections a CA-list can be uploaded from the web interface.

**On:** Set to On to verify TLS connections. Only TLS connections to servers, whom x.509 certificate is validated against the CA-list, will be allowed.

**Off:** Set to Off to allow TLS connections without verifying them. The TLS connections are allowed to be set up without verifying the x.509 certificate received from the server against the local CA-list. This should typically be selected if no SIP CA-list has been uploaded.

## Type

Enables SIP extensions and special behaviour for a vendor or provider.

**Standard:** Should be used when registering to standard SIP proxy like OpenSer.

**Alcatel:** Must be used when registering to a Alcatel-Lucent OmniPCX Enterprise R7 or later.

**Avaya:** Must be used when registered to a Avaya Communication Manager.

**Cisco:** Must be used when registering to a Cisco CallManager version 5 or later.

**Microsoft:** Must be used when registering to a Microsoft LCS or OCS server.

**Nortel:** Must be used when registering to a Nortel MCS 5100 or MCS 5200 PBX.

**Siemens:** Must be used when registering to a Siemens HiPath 8000.

**Broadsoft:** Must be used when registering to a Broadsoft server.

## Outbound: Off

Not used in this version

## Mailbox

SIP URI of media mailbox (i.e. voicemail, videomail).

## MultiWay conference

Name of the MultiWay conference.

## Line

Select between Private and Shared. Private lines are regular SIP-

profiles similar to the line concept in TE 2.0 and earlier versions. A shared line is a BroadWorks extension that is supported in TE 2.1. It means that several users (E20s with TE 2.1) can share a line. Whenever someone calls the shared line, all of the E20s that configured with the shared line will start ring. Whoever answers first will take the call. However, it is possible for other users of the shared line to barge-in and join the call. Since Broadworks does not support video mixing in the current version, the joined call will be audio only. Once one of the users disconnects from the call, the video is resumed.

## URI

Key in the URI of the E20 unit.

## Proxy 1

**Address:** The Proxy Address is the manually configured address for the outbound proxy. It is possible to use a fully qualified domain name, or an IP address. The default port is 5060 for TCP and UDP but another can be provided.

**Discovery:** When Manual is selected, the manually configured SIP Proxy address will be used. When Auto is selected, the SIP Proxy address is obtained using Dynamic Host Configuration Protocol (DHCP).

## Proxy 2-4

Identical to Proxy 1.

## Authentication 1

**Login name:** This is the user name part of the credentials used to authenticate towards the SIP proxy.

**Password:** This is the password part of the credentials used to authenticate towards the SIP proxy.

## Standby

The Standby Control setting determines whether the system should go into standby mode or not.

**Control On:** The system will go into standby mode when the Standby Delay has timed out. Requires the Standby Delay to be set to an appropriate value.

**Control Off:** The system will not go into standby.

**Delay:** Defines how long (in minutes) the system will wait before it goes into standby mode. Requires the Standby Control to be enabled. Range 1–480 minutes.

## System Unit

Enter a System Name to define a name of the system unit. The system name will be displayed when the E20 is acting as an SNMP Agent and towards a DHCP server.

**Bluetooth™** can be set to On or Off.

## HearingImpairedMode

**On:** If this setting is on, the device will play a blinking, orange video whenever there is an incoming call.

**Off:** Default

## Name

Readable name of the device, e.g. Joe's E20

## MenuLanguage

This setting allows you to set the menu language, if necessary.

## Time

Allows you to set the time zone accordingly.

## Video

Set the Selfview to On or Off. Selfview is the outgoing video (what the others see) from your E20, adjust the brightness of the image and select wallpaper.

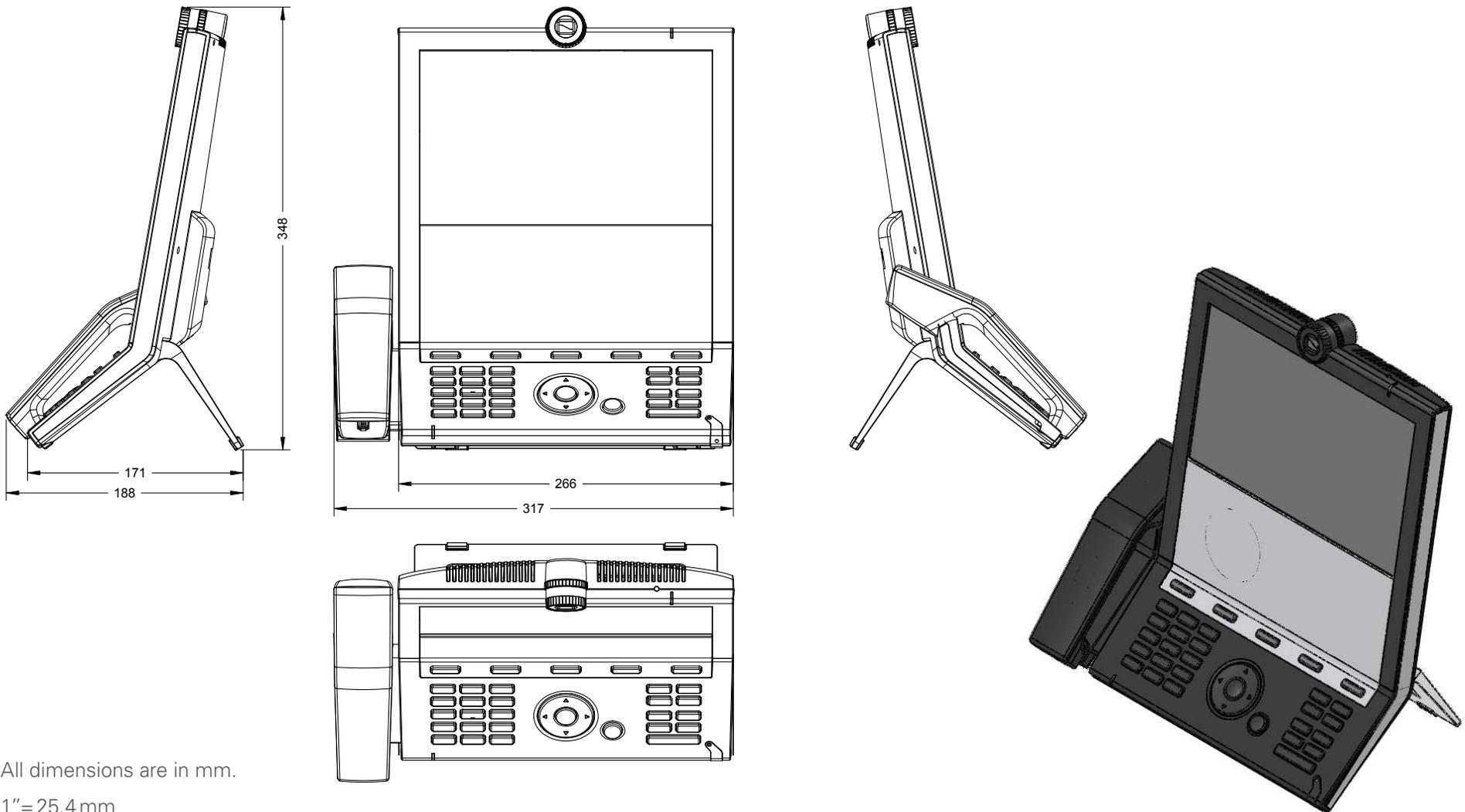
## Change password

This allows you to change the administrator password on the device. This is done by entering the password in the password field and pressing the Save button. The User can cancel the password update by pressing the Cancel button.

## Restart

Use this to reboot the E20 in a controlled manner.

## Mechanical dimensions



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