REVOLABS FLX™ UC 1000

IP & USB Conference Phone

Installation and Operation Guide

Models:

10-FLXUC1000

Revolabs FLX UC 1000 Installation and Operation Guide
10-FLXUC1000-EN
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Contents

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Getting Started with the FLX UC 1000

Assembling the FLX UC 1000

The box of the FLX UC 1000 includes 1 Base Unit, 1 Dialer with connected cable, 1 Ethernet Cable, and 1 USB cable. Remove all these items from the packaging.

Connecting the Dialer

Once the components are removed from the packaging, turn the base unit upside down. On the bottom of the base unit, there are two areas where you can connect cables to the base unit.

The area pictured in the figure below is where the USB and Ethernet cables are connected.

The area pictured in the figure below is the port for the dialer cable labeled "Dialer Only."

Take the dialer cable and push that cable connector into the "Dialer Only" hole until it clicks into place.

Powering up the FLX UC 1000

The FLX UC 1000 is designed to be powered using Power over Ethernet (PoE). If you have an Ethernet port that does not provide PoE, an adapter can be ordered from Revolabs to provide the device with power.

Take the Ethernet cable that was provided in the box, and turn the base unit upside down, and locate the area displayed below.

Connect one end of the Ethernet cable into the network connection port on the bottom of the unit. It's characterized by the icon displayed below. Press until it clicks into place.

Connect the other end of the Ethernet cable into a jack providing PoE or a PoE adapter.

If the cable needs to be removed from the FLX UC 1000, depress the plastic lever on the connection to the FLX UC 1000 and pull the cable out gently while keeping that plastic lever depressed. Using force when removing this cable may damage the cable and render it useless.

Once connected to a power source, the device will boot up. The lights on the Base will alternate red-orange-green-orange as the system boots. When it is ready to use, the Base will chime and the Dialer will bring up the home screen.

Connecting the FLX UC 1000 to a Computer

Using the USB cable that came with the device, connect the mini USB side of the cable into the connector identified by the icon in the figure below.

Connect the other end of the cable to the USB port on the computer that will be used with the FLX UC 1000 for third party softphone, webinar, or conferencing applications.

The computer may detect new driver software and install it, wait until the install has succeeded before continuing. Once this is complete, a white USB symbol should appear in the quick-reference bar at the top of the dialer screen.

For optimal audio performance when using Windows, please follow the instructions in the appendix section.

Understanding the Components of the FLX UC 1000

Base Unit

The base unit houses the speaker and 4 embedded microphones of the system. It includes volume up, volume down, mute, answer call, and hang-up buttons.

On four corners of the base system, there are LEDs to display the call status. During a call, these LEDs will be green when the system is unmuted and red when the system is muted.

When not in a call, the lights can be configured for an idle color with options of solid amber, solid green, or unlit. By default, the idle color will be selected as unlit. .

On the bottom of the base unit, there are three ports for connecting up the system: a port for the dialer cable, a port for the USB cable, and a port for the Ethernet cable.

Dialer

There are four categories of buttons on the dialer:

- Quick Keys: Menu, Redial, Answer, Hang Up
- Soft Keys: 4 keys under the color display
- Keypad: Numbers, Letters, Special Characters on Left Side
- Directional Buttons & Volume Control: Located on the Right Side

Quick Keys

The Menu button brings up the Menu interface. While in any menu, pressing the "menu" button will bring you back to the home screen.

The Redial button opens the recent calls menu.

The green Answer Call Button answers an incoming call and can also be used to open the dialer menu.

The red Hang-Up Call Button can be used to hang up or end an existing call.

Soft Keys

There are four selection buttons under the color screen that correspond to the options displayed just above the buttons on the screen. These soft keys are used to navigate menu options. Each button corresponds to the grey box on the screen right above it. If there is no grey box above the button, that button does not correspond to anything in the current menu

The Soft Keys provide different options depending on the current screen. The details of the options provided are provided in the respective screens.

If there are more than 3 soft keys available for the screen, a [MORE>] button will be displayed for the right most soft key. The user can navigate to the next set of options by pressing this button. If on the second set of options a [<MORE] button will be displayed on the left most soft key.

Keypad

The keypad has the digits 0-9, *, and #, and can be used to render the alphabet in certain menus.

When entering contact names, and the use of letters are required, the keypad can be used for this. The first time the key is pressed it will type a lowercased version of the first letter next to that number. Pressing again quickly will change that letter to the next letter and so on. The first cycle through the letters that number can type will be lowercase, then the number, then the same letters uppercase, then repeated again from the beginning.

For example, the number "2" is also responsible for the letters a, b, and c. So, pressed quickly it would cycle through like this:

     a b c 2 A B C a b c 2 A B C

And so on.

Unlike the rest of the number keys, the number "1" only types itself. And unlike all the other keys, the * key has more than what is shown above the button that it cycles through. It cycles through:

     * . , - _ ( ) @   and then repeats

Directional Buttons & Volume Control

The directional keys are left, right, up, down, and "ok" for selecting.

Generally, The up and down arrow keys can be used to select different submenu options. The right arrow key can be used to open menus and the left arrow key can be used to go back.

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The "OK" and [Select] buttons can be used to enter menus or toggle configuration items, and the [Back] button can be used to exit menus.

When editing a configuration item that uses a slider bar, the left and right arrow keys are used to change the value in the slider.

Located near the directional keys are the volume control and mute buttons. Similar to the base, the system volume can be increased or decreased using the volume up and volume buttons, and the system can be muted using the mute button on the dialer.

The mute/unmute button only applies during an active call. It is not applied to the device when a call is not active.

User Interface

Base Unit

As mentioned in the Getting Started section, the base unit provides volume up, volume down, mute, answer call, and hang-up buttons. Mute status will be reflected on the LEDs on the four corners of the device; during a call, these LEDs will be green when the system is unmuted and red when the system is muted.

When not in a call, the lights can be configured for an idle color with options of solid amber, solid green, or unlit. By default, the idle color will be selected as unlit. In order to change this color, an administrator can log into the web UI and configure the desired idle color.

For additional call control functionality i.e. hang up and answer from the device for the preferred third party softphone, webinar, or conferencing application, refer to section in this manual on FLX UC Device Manager.

Dialer

As mentioned in the Getting Started section of the manual, there are a series of screens on the dialer. The details of those screens are indicated in this section.

Home Screen

When the device is powered on, the device will display the home screen. This screen is characterized by the Revolabs Logo (or customer specific logo) in the center of the screen. On the home screen, there are three key areas to note: a quick reference bar, information about the user ID of the device, and soft keys.

The quick reference bar provides information of the call status of the system. The information available in this quick reference bar includes:

- Call Icon (in Green): Displays information about call status including No Call, Call in Progress, and Mute Indicator
- USB Icon: Displays when the FLX UC 1000 is plugged into a computer
- Do Not Disturb (DND): Displays when the system is configured for do not disturb.
- Voice Mail Icon: Displays when a voice mail is available
- Missed Call: Displays when a call has been missed
- Date: Displays current date. The format is configurable in the Menu or Web Interface

- Time: Displays current time. Time Zone is configurable in the Menu or Web Interface

The user ID is displayed directly under the quick reference bar in the upper left hand side of the screen.

The soft keys are available at the bottom of the screen. Refer to [this section](#) for additional details about the soft keys. On the home screen, the options provided for the soft keys are as follows:

- [Calls]: Redirects to the Recent Calls Menu
- [USB On]: Turns USB Audio on if USB Audio is set to User Determined
- [New Call]: Opens the Dialer Menu
- [DnD]: Toggles Do not Disturb mode
- [Contacts]: Opens the Contacts Menu

When the system is idle, this screen will display the Revolabs Logo. The empty screen space over the logo is where call in progress information is displayed. VoIP Calls, of which this system supports 2 simultaneous calls, will take up the top two-third of the screen in two bars. USB Audio, when configured for Always On or User Determined and On, will appear as a bar on the bottom of the screen. Up to 3 simultaneous calls, 2 VoIP and 1 USB line, can be ongoing on the FLX UC 1000 at one time.

The call state is indicated by the color of the bar:

- Incoming Call: Yellow
- Call in Progress/Active: Green
- On Hold: Orange
- Call Ended: Red

Main Menu Screen

To access the Main Menu Screen, press the "menu" button at the top left of the Dialer screen.

To navigate the Main Menu, use the arrow keys to move the shaded circle around the option you wish to choose.
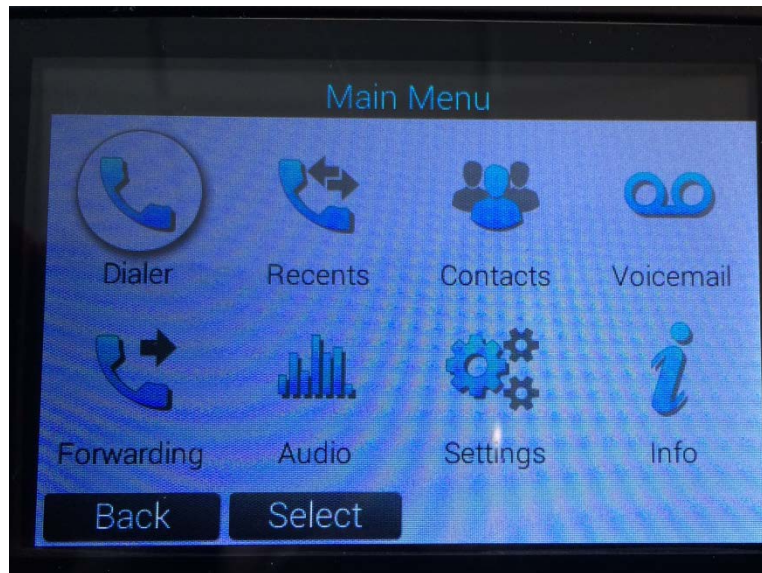
Alternatively, you can also press the number corresponding to the option:

1 - Dialer	2 - Recents	3 - Contacts	4 - Voicemail
5 - Forwarding	6 - Audio	7 - Settings	8 - Info

Pressing the OK or Select buttons when highlighting any of these options or pressing the number corresponding to the options will open the appropriate submenu. Using the Back button will bring the user back to the Home Screen.

Dialer Submenu

This screen can be used to dial a VoIP call. There will be a highlighted box with the word "Number:". The keypad can be used to dial a phone number and the numbers will be displayed after the word "Number:"

The Soft Keys available on this screen are:

- Dial: Attempts to dial the number entered. The Green Call button to the upper right of the screen can also be used to call the number.
- <x: Backspace/Deletes the last typed number
- Cancel: Leaves the dialer screen and returns to the previously opened screen
- Clear: Deletes the entire number typed

Recent Calls

This submenu displays the recent calls from this phone. Each call is characterized by a name or number dialed, and the type of call: a dialed call, received call, or a missed call. The list can be navigated by using the up and down arrow keys. From this list, the selected call can be redialed or deleted.

This list can be sorted to display all calls, missed calls, dialed calls, or received calls.

An individual call can be selected using the right arrow key or "Ok" button, opening an additional information submenu for that call. In the submenu, the call has the following information under a header of name/number:

- Name
- Number
- Time (Date and time of call)
- Duration
- Type of Call: Missed, Dialed, Received

From this menu, the call can be saved to contacts, deleted, or redialed.

Contacts

This submenu contains the contacts list for the phone.

New contacts can be added from this menu, or saved from recent calls.

The list can be traversed by using the up and down arrow keys.

An existing contact can be dialed using the dial button or the green call quick key.

The contact can also be deleted from this menu.

An existing contact can be edited or viewed with the right arrow key, "OK" button, or by selecting the View Soft Key.

In a contact's submenu the Name, Work phone, Mobile phone, and Home phone can be entered by selecting the row with the up and down arrow keys and then editing it. (For a new contact edit mode is enabled by default, just move to the row and start typing on the key pad.)

One of the three phone numbers can be as the default number set with the "ok" button. When speed dialing the number or dialing the contact from a higher menu, the default number will be the one called.

At the bottom of the submenu, the contact can be assigned a speed dial. The speed dial menu that opens can show available speed dial buttons. To activate a speed dial hold down the button it is assigned to.

To save a new contact, save edits to an old contact, or set a speed dial, the contact must have a number into this field.

Forwarding
Call forwarding can be toggled on for all calls, calls when the line is busy, and calls not answered in a set amount of time.

When toggling on one of the forwarding options, a popup will appear asking what phone number the calls should be forwarded to.

Wait time before an unanswered call is forwarded can be set from 2-30 seconds.

Audio
"Speaker Volume" and "Ringer Volume" sliders go from 0-17. The "Ringer Volume" slider plays a test tone for every number change. The "Speaker Volume" slider does not.

Ring Selection opens a menu where ring tones can be selected. You can test the ringtones before selecting in this menu by using the [Play] button at the bottom of the screen.

Speaker EQ opens a menu where Voice Enhance, Bass Boost, or Treble Boost can be selected.

Advanced Audio opens a menu that only has the High Pass Filter menu in it. In the High Pass Filter menu, this filter can be set to None, 110 Hz, 140 Hz, 175 Hz, or 225 Hz.

Voicemail
Selecting this submenu will call the mailbox assigned to the device. If no voicemail has been configured an alert popup will appear, stating "Voice Mail number has not been configured yet!"

Settings
There are three submenus in the Settings menu: Language Selection, Display Settings, and Admin Settings.

Language Selection is where the language can be changed.

Display setting has a slider for screen brightness, going from 1-15, and a menu for Backlight Time, or how long the screen will remain lit before turning off. Selecting "Never" for Backlight Time means the screen will not dim at all.

Admin Settings is the only menu on the requiring a password. The default password is 7386, but can be changed. This is the same password to log onto the Web UI, so changing one affects both menus.

In Admin Settings the admin password can be changed, VoIP Settings can be set, IPv4 Settings can be set, Date/Time settings can be changed, Access from the Web UI can be toggled, and saving Recent Call data can be turned on or off.

Turning off Recent Calls brings up a popup asking "Do you want to clear the recent call list?"

> If "Yes" is selected, all call data on the device will be deleted, and there will be nothing saved on the device until Recent Calls is re-enabled.

> If "No" is selected, the call data is saved, but no new call data is added, and the call data cannot be accessed until Recent Calls is re-enabled.

Further down, Idle LED Color can be set, the device can be rebooted, sections of the system configurations can be reset one by one or all together, and the user can log out of admin mode.

Information
This menu provides the following information about the product

- Product Name: FLX UC 1000
- IP Address:
- Mac Addr:
- Base FW Version:
- Dialer FW Version:
- Dialer Serial #:
- Call 1 Statistics
- Call 2 Statistics

Web User Interface (Web UI)

First, locate the IP address of the FLX UC 1000. On the dialer, press the menu button, and select the info option. On this screen you will see the IP address. Take note of this information.

Open an internet browser on your computer, and type in the IP address into the browser address bar, and press enter. The login screen for the FLX UC 1000 will be displayed. On this screen, you will need to use a password to login. The default password to log in is 7386. If you set a new password prior to logging in to the web UI on the dialer in Admin Settings, the same password applies here.

Upon logging into the Web UI, the home screen will be displayed.

Generally, on menus where information can be changed, pressing the "Enter" key on the keyboard or clicking "Submit" on the screen will save your changes. Clicking to another page or reloading the page you are all will require all not-saved information to be re-entered.

The Logout button is in the upper right-hand corner of the page, in the white bar.

To prevent your log-in session from timing out, check the "Stay Logged In" option under the password bar on the login screen. Please note that the computer will not log out on its own if this option is selected and remember to log out when you are finished.

Home Screen

This screen is characterized by a header bar with three icons:

- House Icon
- Gears Icon
- Tools Icon

Clicking the House icon will bring you back to the home screen from the other pages on the site.

Hovering over the Gears and Tools icons displays the submenu options for these menus, and allows those pages to be accessed by clicking their names.

Under the header bar, the home page contains the System Information and Current Call information, as well as a button to restart the device.

System information provided is IP Address, Software Version, Serial Number, and MAC Address.

Settings

Admin
On the admin settings page, under the Security Settings header, the system password can be changed, web access can be toggled, and call history can be toggled. Under Device Settings the base's LEDs idle setting can be set, Dialer Brightness can be adjusted, and Dialer Backlight Timeout time can be set. Deployment Server settings is where the deployment server can be enabled or disabled and automatic server discovery can be toggled on or off.

The system password required format is numerical. It is the same password entered with the keypad to access the Admin Settings on the Dialer.

Disabling web access and then saving the changes will make the Web UI unusable. Web Access must be reactivated through the Admin Setting menu on the Dialer.

Toggling call history off will bring up a popup asking if the existing call history should be deleted when the submit button is clicked to save changes.

Idle LED settings change the color the lights on the base will hold while a call is not active.

The Brightness slider goes from 1-15.

Backlight timeout sets the time the dialer will spend at full brightness before dimming again. Setting "Never" keeps the dialer lit all the time.

Audio
Speaker Volume and Ringer Volume can both be adjusted on a slider that goes from 0 – 17.

Ringtone selection can be set using a dropdown menu to choose from available ringtones. The selected Ringtone will play after "Submit" has been clicked to save changes.

Equalizer settings available are Voice Enhance, Bass Boost, and Treble Boost.

High Pass filter can be set to None, 110Hz, 140Hz, 175Hz, or 225Hz.

USB Audio can be set to Always Enabled, Always Disabled, or User Determined.

Audio Codecs can be configured and arranged in order of priority by dragging and dropping them in the "enabled" box or by disabled by dragging and dropping them into the "disabled" box.

The slider under the boxes enables the Codec ptime override to be set from 10-1000 milliseconds per packet.

Calls
The "Enable Message Waiting" toggle requires the device to have been set up to support voicemail. Once a voicemail is attached to the machine, turning this on will enable the voicemail symbol to appear on the quick-reference bar at the top of the Dialer screen when there is a message waiting.

"Enable Do Not Disturb" toggles do not disturb mode on the device. When DnD mode is active, incoming callers will receive a busy tone, and the device will not ring. Missed calls will still be recorded as long as Recent Calls information is set to be collected in Admin Settings.

"Enable Auto Answer" means that the phone will answer every incoming call without user input. This is mostly useful for testing purposes, and not recommended for long term use.

The Voicemail number can be typed into the box below the Voicemail header.

Maximum call duration can be typed into this box, and longer calls will be cut off. Setting a max duration of "0" or blank will make it so there is no maximum call duration.

Enter required Dial Plan digits in the box under this header if necessary, otherwise leave it blank.

Forwarding Settings is where call forwarding is set up. After activating any of the three forwarding options, another line will appear under the activated item asking for the forwarding number. For the last option, "Forward on no answer", there will also be a slider provided to set the wait time before forwarding between 2 and 30 seconds.

Network
Enable DHCP, if toggled off, requires a Static IP and Subnet to be provided in the menu that expands underneath it.

Underneath this section is the Voice VLAN option, where this option can be set to enabled, disable, or automatic.

Region
Region Settings is where system language and date/time settings can be configured.

Languages can be chosen from the first dropdown menu, while the next two menus are for choosing the region the dial tones should emulate and the time zone to set the time based on.

Date can be set as MM/DD/YYYY, DD/MM/YYYY, or YYYY/MM/DD, and 24 hour time can be toggled on or off. Finally the time servers can be set and daylight savings time can be enabled or disabled.

SIP
This menu is where the VoIP configuration settings are located for setting up the FLX UC 1000 with the call manager. Detailed configuration for a specific call manager is available in the Appendix.

Transport
This section allows configuration of the NAT settings for the FLX UC 1000 and SRTP and RTP settings for security. Transport protocol information for SIP messages as well as QoS configuration is available in this page.

Tools

Update
This screen allows the user to upgrade the device firmware for the FLX UC 1000. Download the file from the Revolabs website and either drag this upgrade file from its folder into the box on the screen (the one labeled "Drag and drop or click here to select a file") or click the box to select an upgrade file from your computer.

Once a file has been selected, clicking the "Update Firmware" button will initiate the upgrade. When the upgrade has completed, the device will restart, and the boot-up chime will sound.

Ensure the device is not unplugged while upgrading.

Contacts
Contacts cannot be edited or viewed through the Web UI, to edit or view your contacts, please use the "Contacts" menu accessible through the Dialer.

From this screen, the device's contacts can be exported as a CSV file, or an existing file can be imported either by dragging it into the box, or clicking the box and navigating to it on your computer, then clicking "Import Contacts".

Configuration
Configurations can be exported or imported through this screen.

System defaults can be restored by selecting which defaults to apply/settings to overwrite, then clicking the "Reset Defaults" button.

Logs
On this page logs can be downloaded, and logging can be toggled between a normal and more detailed mode.

Basic Operations

Dialing a Number

From the home screen on the Dialer, enter the "Dialer" menu using either the [New Call] button along the bottom of the screen, or using the Start/Answer Call button at the upper right of the screen. From the Main Menu the "Dialer" menu can be selected with the arrow keys or by pressing the number "1".

Accessing the Dialer menu through the Start/Answer Call button dials the numbers in the order they are entered on the keypad, similar to hitting the call button before dialing on a standard phone. If you make a mistake, you can [Clear] the number and start again, or [Cancel] the call.

In the "Dialer" menu accessed through [New Call] or the "Dialer" option on the Main Menu, the call is not initiated until the [Dial] or Start/Answer Call buttons are selected. Use the [<x] button at the bottom of the screen to delete, or the [Clear] button to empty the whole number and start again.

Redialing a Number

From the home screen, enter the "Recent Calls" using the [Calls] button at the bottom of the screen or the "redial" button to the left of the screen. From the Main Menu, select the "Recents" menu with the arrow keys, or press the number "2".

Select the Recent call with the up and down arrow keys, then use the [Dial] button at the bottom of the screen to redial that number.

Dialing a Contact

From the home screen, enter the "Contacts" menu by selecting [More >] and then [Contacts] using the buttons at the bottom of the screen. From the Main Menu, select Contacts with the arrow keys or push the number "3" on the keypad.

To call the *Default* number of a contact, you can simply select the desired contact with the up and down arrow keys and then used the [Dial] button at the bottom of the screen. To dial one of the non-default numbers of a contact open the contact, then select the desired number with the up and down arrow keys before using the [Dial] button at the bottom of the screen.

The default number of the contact is the one with the green selection next to it in that contact's mini-menu.

Making a call while another call is already active

Select [New Call] along the bottom of the screen and dial the second number.

The first call will be put on hold and the second call will now be active. To switch between calls, use the black outline to select the second call with the up or down arrowkeys, then press the [Resume] button at the bottom of the screen. This will switch the selective call to active, and put the previous call on hold.

Answering an Incoming Call

While on a call, answer an incoming call by hitting the green answer button on the dialer or base.

Ignoring an Incoming Call

To ignore the incoming call, select it through the dialer and press the [Ignore] button.

Hanging Up a Call

Pressing the red hang-up button will hang up on your ongoing call.

Using USB Audio on the FLX UC 1000

Using the Web UI or the Admin settings for USB Audio on the Dialer, configure the system for USB Audio by selecting Always On or User Determined.

If USB Audio is not to be used, select Always Off.

If User Determined is selected, turn on USB Audio from the home page of the Dialer by selecting the [USB On] button at the bottom of the screen.

If audio from the computer isn't playing through the FLX UC 1000, verify the volume settings and mute settings on the PC to ensure the system is not muted and the volume level. Verify that the FLX UC 1000 is chosen as the Default Audio device in the PC Sounds menu, and this should resolve any issues with the audio playing through the device.

For additional call control (hang-up and answer) with Third Party Conferencing Applications, please refer to the section on the FLX UC Device Manager.

Setting up a Conference Call

The FLX UC 1000 can have two simultaneous VoIP calls and the USB audio line active at the same time. Any combination of these calls can be joined into a conference.

To set up a conference call when no calls are active, simply initiate the first call, then press the [Conf] button at the bottom of the screen and dial a second call. Both calls will now be active at once and in a conference call with one another.

To set up a conference call when more than one call is up on the screen, select one call and make it active (not on hold). Then select the second call you wish to include in the conference, and hit the [Join] button at the bottom of the screen. This will create a conference call. The third call can be included in the same conference call by selecting it and hitting [Join] again.

To separate the conference call, hit the [Split] button at the bottom of the screen while selecting the conference call. This will split the conference and put all the calls on hold. Select the call you wish to switch to, and press [Resume] to activate it.

> **NOTE:** Hanging up on a conference call you are hosting will hang up on the connection between the three calls. The conference will not continue after you leave. Hanging up on a conference you called into will only remove you from the conference, not affect the other callers.

The UC 1000 only has three lines for incoming or outgoing calls. Even if the three calls are all in one conference, more calls cannot be made through the unit. Call forwarding can be set up to forward a caller who calls in while all three lines are busy.

Using Do Not Disturb

When Do Not Disturb mode is active, incoming calls will be received, but will not ring the device. On the far end, the user calling the FLX UC 1000 will receive a busy tone. This feature can be configured using the dialer or the web UI.

Configuring the FLX UC 1000 for your VoIP Network

This section will provide details of how to configure the FLX UC 1000 to a call manager. The information provided here is general to any call manager, and provides the details of how to access the configuration settings on the FLX UC 1000 to enter in the specific call manager information.

Detailed configuration for specific call managers, including the mappings of fields, is provided in the appendix of this manual.

There are three methods with which you can configure the FLX UC 1000 to connect to the VoIP network – using the dialer, from the Web UI, or using a provisioning server with Option 66.

Through the Dialer

Access the Main Menu, Settings, Admin Settings, VoIP Settings from the Dialer.

The default password to Admin Settings is 7386. If you've changed the password to access the Web UI, the same password applies to the Admin Settings menu.

Select each configuration item and use the [Edit] button at the bottom of the screen to edit the item. After filling out the necessary information, hit the [Apply] button to save the changes.

Return to the "Admin Settings" menu and scroll down to option 9, "Reboot". Rebooting the device will apply the changes.

Through Web User Interface

Navigate to the SIP Settings Menu from the Gears Icon on the Home Screen.

Fill out the configuration details, then hit the "Submit" button hovering over the top right of the screen to save your changes.

Reboot not required.

Through Provisioning Server, using Option 66

Connecting the UC 1000 to the VoIP Network using a provisioning server via option 66

1. Configure the TFTP server name into the DHCP server option 66 string.
2. Upload the configuration file with the UC 1000 firmware bundle onto the TFTP server identified by the DHCP server option 66 string. The device configuration file must be named with the phone mac address.
3. When provisioning through HTTP, the option 66 string configured on the DHCP server should be: http://<server address>
   Configuration files and firmware files should be placed under http server document root directory.
4. When provisioning through FTP, the option 66 string specified on the DHCP server should be: ftp://<server address>/user="<username>"&pass="<password>", where <username> and <password> should be replaced by the FTP server username and password respectively.
   Configuration file and firmware files should be loaded to the FTP shared folder where the <username> login will be prompted to.
5. No reboot of the system is required. On successful configuration, the phone screen will display the phone number associated with the line.
6. A sample configuration file is available on the following page.

Provisioning configuration file sample

The provisioning file was created in xml format. "config" tag contains all configuration settings pertain to the device, while the "firmware" tag includes the latest firmware version and firmware file name.

Device configuration file without include files.

```xml
<provisioning>

  <config voip.registrar="200.200.210.240" voip.registrar-backup="" voip.proxy=""
    voip.reg-use-proxy="0" voip.id="" voip.name="test" voip.user="test"
    voip.password="test" voip.reg-timeout="0" voip.rereg-delay="0" voip.use-timer="0"
    voip.timer-se="0" voip.timer-min-se="0" voip.use-100rel="0" voip.auto-update-
    nat="0" voip.dtmf-method="0" voip.media-onhold-method="0" voip.use-srtp="0"
    voip.rtp-port="0" voip.udp-tcp-selection="0" voip.local-port="0" voip.ip-addr=""
    voip.bound-addr="" voip.stun-srv="" voip.use-ice="0" voip.ice-regular="0" voip.ice-
    max-hosts="0" voip.ice-no-rtcp="0" voip.use-turn="0" voip.turn-srv="" voip.turn-
    user="" voip.turn-passwd="" voip.turn-tcp="0" voip.set-qos="0" voip.codec1="0"
    voip.codec2="0" voip.codec3="0" voip.codec4="0" voip.quality="0" voip.ptime="0"
    voip.no-vad="0" voip.jb-max-size="0" voip.auto-answer="0" voip.duration="0"
    voip.mwi="0" voip.always-forwarding="0" voip.always-forwarding-num="" voip.busy-
    forwarding="0" voip.busy-forwarding-num="" voip.noanswer-forwarding="0"
    voip.noanswer-forwarding-num="" voip.noanswer-delay="" voip.do-not-disturb="0"
    audio.all-mic-mute="0" audio.start-mute="0" audio.aux-in="0" audio.aux-in-level="0"
    audio.aux-out="0" audio.aux-out-level="0" audio.output-level="0" audio.speaker-
    volume="0" audio.ringer-volume="0" audio.ring-tone="0" audio.eq="0" audio.high-
    pass-filter="0" audio.low-pass-filter="0" audio.auto-mixing="0" audio.speaker-mix-
    phone-level="0" audio.speaker-mix-usb-level="0" audio.phone-mix-mic-level="0"
    audio.phone-mix-usb-level="0" audio.usb-mix-mic-level="0" audio.usb-mix-phone-
    level="0" audio.auto-gating="0" audio.auto-aec="0" sys.product="" sys.base-ver=""
    sys.password="0" sys.web-enabled="0" sys.language="0" sys.region="0" sys.date-
    time="" sys.date-format="net.ntp4" sys.twenty-four-hour-time="0" sys.time-
    zone="0" sys.dst-enabled="0" sys.dst-start-rules="0" sys.dst-end-rules="0"
    sys.recent-call-enabled="0" sys.require-http="0" sys.power-saving-mode="0" sys.ftp-
    srv1="" sys.ftp-srv2="" net.dhcp="1" net.ip="" net.mac="" net.subnet=""
    net.gateway="" net.domain="" net.dns1="" net.dns2="" net.ip-v6="" net.mac-v6=""
    net.subnet-v6="" net.gateway-v6="" net.domain-v6="" net.dns1-v6="" net.dns2-
    v6="" net.vlan="0" net.vlan-id="" net.ntp1="" net.ntp2="" net.ntp3="" net.ntp4=""
    display.contrast="0" display.brightness="0" display.backlight-time="0" />

  <firmware version="1.0">APP6901SIP.9-2-1-0.zz.sgn</firmware>

</provisioning>
```

Device configuration file with include files

Device configuration file

```
<provisioning include="enterprise.xml, department.xml">

<config voip.id="test" voip.name="test" voip.user="test" voip.password="test" />

</provisioning>
```

Include files

enterprise.xml

```
<provisioning>

  <config voip.registrar="200.200.210.240" />

  <firmware version="1.0">rootfs-214.sebn</firmware>

</provisioning>
```

department.xml

```
<provisioning>

  <config voip.registrar-backup="" voip.proxy="" voip.reg-use-proxy="0" voip.reg-
      timeout="0" voip.rereg-delay="0" voip.use-timer="0" voip.timer-se="0" voip.timer-
      min-se="0" voip.use-100rel="0" voip.auto-update-nat="0" voip.dtmf-method="0"
      voip.media-onhold-method="0" voip.use-srtp="0" voip.rtp-port="0" voip.udp-tcp-
      selection="0" voip.local-port="0" voip.ip-addr="" voip.bound-addr="" voip.stun-srv=""
      voip.use-ice="0" voip.ice-regular="0" voip.ice-max-hosts="0" voip.ice-no-rtcp="0"
      voip.use-turn="0" voip.turn-srv="" voip.turn-user="" voip.turn-passwd="" voip.turn-
      tcp="0" voip.set-qos="0" voip.codec1="0" voip.codec2="0" voip.codec3="0"
      voip.codec4="0" voip.quality="0" voip.ptime="0" voip.no-vad="0" voip.jb-max-
      size="0" voip.auto-answer="0" voip.duration="0" voip.mwi="0" voip.always-
      forwarding="0" voip.always-forwarding-num="" voip.busy-forwarding="0" voip.busy-
      forwarding-num="" voip.noanswer-forwarding="0" voip.noanswer-forwarding-num=""
      voip.noanswer-delay="" voip.do-not-disturb="0" audio.all-mic-mute="0" audio.start-
      mute="0" audio.aux-in="0" audio.aux-in-level="0" audio.aux-out="0" audio.aux-out-
      level="0" audio.output-level="0" audio.speaker-volume="0" audio.ringer-volume="0"
      audio.ring-tone="0" audio.eq="0" audio.high-pass-filter="0" audio.low-pass-filter="0"
      audio.auto-mixing="0" audio.speaker-mix-phone-level="0" audio.speaker-mix-usb-
      level="0" audio.phone-mix-mic-level="0" audio.phone-mix-usb-level="0" audio.usb-
      mix-mic-level="0" audio.usb-mix-phone-level="0" audio.auto-gating="0" audio.auto-
      aec="0" sys.product="" sys.base-ver="" sys.password="0" sys.web-enabled="0"
      sys.language="0" sys.region="0" sys.date-time="" sys.date-format="net.ntp4"
```

```
sys.twenty-four-hour-time="0" sys.time-zone="0" sys.dst-enabled="0" sys.dst-start-
rules="0" sys.dst-end-rules="0" sys.recent-call-enabled="0" sys.require-http="0"
sys.power-saving-mode="0" sys.ftp-srv1="" sys.ftp-srv2="" net.dhcp="1" net.ip=""
net.mac="" net.subnet="" net.gateway="" net.domain="" net.dns1="" net.dns2=""
net.ip-v6="" net.mac-v6="" net.subnet-v6="" net.gateway-v6="" net.domain-v6=""
net.dns1-v6="" net.dns2-v6="" net.vlan="0" net.vlan-id="" net.ntp1="" net.ntp2=""
net.ntp3="" net.ntp4="" display.contrast="0" display.brightness="0" display.backlight-
time="0" />

</provisioning>
```

FLX UC 1000 Device Manager

This application provides an interface for easy access to softphone controls, configuration for a variety of softphones, conferencing, or webinar applications, configuration of application specific commands for answer, reject, and hang up support directly from the FLX UC 1000, and configuration for launching upon windows start-up.

Third Party Applications Supported

Product Name	Software Version
Skype™	6.21 and older
Vidyo®	3.4, 3.5
Cisco Jabber®	10.5.0
Cisco® IP Communicator	8.6.4.0
Microsoft Lync®	15.0.4420.1017
Citrix GoToMeeting®	6.4.10
Cisco WebEx®	29.10.1.10.115
X-Lite™	4.7.1
Broadsoft UC One®	21.0.0.158

Installation & Third Party Application Configuration

For Windows

1. Download firmware bundle from the http://revolabs.com/support/product-line/uc-1000.

2. Navigate to Start, Programs, Revolabs, FLX UC Device Manager and open the application.

3. Connect the FLX UC 1000 to the PC. Device drivers should be installed when the unit is connected to the computer.

4. Click on Settings and select the application from the drop down menu that you plan to use.

5. Click Configure if the option is presented, or OK. Configure will bring user to another menu allowing application specific configuration of the hot keys for hang up and answer. This option is only provided when using Skype.

Note: Softphone and device status are displayed in FLX UC Device Manager Home Screen.

For Mac

1. Download firmware bundle from the http://revolabs.com/support/product-line/uc-1000 page depending on the product you have.
2. Double click on the .dmg file.
3. When prompted, drag the FLX UC Device Manager to the Applications folder.
4. Connect the FLX UC 1000 to the computer. Device drivers should be installed when the unit is connected.
5. Click on "Preferences…" and select the application from the drop down menu that you plan to use.

Note: Call hang up and answer for the FLX UC 1000 on a Google Chromebook will be available in a future release.

Upgrading the FLX UC 1000 Device Firmware

From the Web Interface

Refer to this section in the manual to upgrade the device firmware via the web UI.

From the Provisioning Server

Refer to this section in the manual to upgrade the device using Option 66.

Compliance

FCC Notice to Users

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Users are not permitted to make changes or modify the equipment in any way. Changes or modifications not expressly approved by Revolabs, Inc. could void your authority to operate this equipment under Federal Communications Commission's rules.

Radio and Television Interference

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.

- Increase the separation between the equipment and the receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402

Industry Canada Notice to Users

Operation is subject to the following two conditions:

1. This device may not cause interference and
2. This device must accept any interference, including interference that may cause undesired operation of the device

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Notice to European Customers

Revolabs, Inc.
190, High Street,
Tonbridge, Kent,
TN9 1BE,
UK.

Declare that for the hereinafter mentioned product model numbers, the presumption of conformity with the applicable essential requirements has been approved in accordance with the Electromagnetic Compatibility (EMC) Directive 2004/108/EC, and RoHS II Directive 2011/65/EU.

Model Number:	Description:
10-FLXUC1000	FLX UC 1000

Any unauthorized modification of the products voids this Declaration.

For a copy of the original signed declaration of conformity, please contact Revolabs at the above address.

WEEE Notification

The Waste Electrical and Electronic Equipment (WEEE) directive (2012/19/EU) is intended to promote recycling of electrical and electronic equipment and their components at end of life.

According to the requirement of the WEEE legislation the following user information is provided to customers for all branded Revolabs products subject to the WEEE directive.

"The symbol on the product or its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste for recycling, please contact your local authority, or where you purchased your product."

Appendix

Known Issues

This section includes the known issues with Build 162 of the FLX UC 1000.

1. Call control (i.e. call hang up and answer) not supported for Skype version 6.22 or higher.

2. Call control (i.e. call hang up and answer) not supported for Go To Meeting version 7.1 or higher. Currently supported version is 6.4.12.

3. When using Vidyo Version 3.5.0 and end the call by touching the hang up cap touch button on the device, and the hang up button is pressed more than once, the application will display a blank window, and the application will need to be closed before the application will start working again.

Additional items will be added as identified.

Optimal Audio Performance for Windows

For the best audio experience follow this **<u>one-time</u>** setup procedure:

4. Right click on the speaker icon in the lower right hand corner.
5. Select "Sounds" from the pull down menu.
6. Click the playback tab.
7. Right click on the Revolabs Digital Audio Device.
8. Select "Set as Default Device" from the pull down menu.
9. Right click on the Revolabs Digital Audio Device again.
10. Select "Set as Default Communication Device" from the pull down menu.
11. Right click on the Revolabs Digital Audio Device one more time.
12. Select "Properties" from the pull down menu.
13. Click on the "Enhancements" tab.
14. Click on the "Disable all enhancements" box.
15. Click on the "Advanced" tab.
16. Click the down arrow in the format box.
17. Select "24 bit 48000 Hz (Studio Quality)".
18. Click "Test", you should hear the test jingle.
19. Click "Apply", then "OK".
20. Click the "Recording" tab.
21. Right click on the Revolabs Digital Audio Device.
22. Select "Set as Default Device" from the pull down menu.
23. Right click on the Revolabs Digital Audio Device again.
24. Select "Set as Default Communication Device" from the pull down menu.
25. (You should see the green VU-meter moving next to Revolabs Digital Audio Device.)
26. Right click on the Revolabs Digital Audio Device one more time.
27. Select "Properties" from the pull down menu.
28. Click on the "Levels" tab.
29. Reduce the Microphone level to 50.
30. Click "OK"
31. Click "OK" to close the Sound Window.

Troubleshooting

Reboot

From the Dialer, enter the Main Menu using the "menu" button. Then navigate to the "Settings" menu and open "Admin Settings".

(Admin Settings is password protected with the same password as the Web UI. If this has not been set to a different number, the default password is 7386.)

Scroll down to the bottom of the menu. Option number 9, "Reboot", will reboot the device.

From the Web UI, log in. Then use the "Restart Device" button under System Information on the home page to reboot the system.

Restore Factory Defaults

From the Dialer, access Admin Settings through the "Settings" menu on the Main Menu. Scroll down to option 10, "Reset Data", and open that menu. Select all the sections you wish to reset, then select the [Reset] button at the bottom of the screen.

From the Web UI, open the "Configuration" menu by hovering over the "Tools" icon. Scroll down to the bottom of the page, under the header "Reset Defaults". Select the sections you wish to reset, then click the "Reset Defaults" button on the right side of the page.

Cannot Access Web User Interface

Check that the IP Address being used is correct. The IP Address of the device is the second item in the "Info" menu. Input the whole IP Address, including periods, into the URL bar of the browser to access the Web UI.

If the IP Address is correct, enter Admin Settings on the dialer through the "Settings" option on the Main Menu. Scroll down to option 6, "Web Access", and make sure the box is checked. If it isn't, use "OK" or [Select] to turn it on, then reboot the device using option 9, "Reboot". When the device turns on, the Web UI should be accessible.

Can't find language menu because the device is in the wrong language

Start on the home screen.

Press the "menu" button to the left of the screen.

Press the number "7" on the keypad.

Press the number "1".

Select your language from the list.

USB Audio call Answering and Hang-Up not working

Verify that the application you are attempting to use is supported by the current FLX UC 1000 Device Manager. The current list is as follows:

- Broadsoft UC One
- Cisco IP Communicator
- Cisco Jabber
- GoToMeeting
- Microsoft Lync
- Skype
- WebEx
- X-Lite
- Vidyo
- FaceTime

If the program is not supported by the Device Manager the call answering and hang-up features will not work. If the program is supported, then the Device Manager may be out of date. Close the Manager before attempting to update it.

Follow the instructions in this section of the manual to set up the FLX UC Device Manager.

Tested Call Managers

The FLX UC 1000 will work with all market leading IP PBXs available on the market today. Revolabs has tested explicitly with the following IP PBXs. Configuration information for the UC 1000 and these call managers are provided in this appendix.

VoIP Provider	Platform name
3CX	3CX Phone System
Digium	Asterisk BE
Avaya	IP Office
Broadsoft	BroadWorks
Cisco	Unified Communication Manager
Junction Networks	OnSIP Hosted PBX

Specific Call Manager Configuration

When configuring the FLX UC 1000 on these call managers, we've mapped the FLX UC 1000 Configuration items here to the configuration information on the specific call manager.

The items specified include:

- Registrar
- VoIP Realm
- Username
- Password
- User ID

3CX Phone System

FLX UC 1000	Call Manager
Registrar	<3CX server IP address>
VoIP Realm	*
Username	User Defined
Password	User Defined
User ID	User Defined

Digium Asterisk BE

FLX UC 1000	Call Manager
Registrar	<Asterisk server IP address>
VoIP Realm	*
Username	User Defined
Password	User Defined
User ID	User Defined

Avaya IP Office

FLX UC 1000	Call Manager
Registrar	<Avaya server IP address>
VoIP Realm	<Avaya server IP address> (same as registrar)
Username	Defined by Avaya Server
Password	Defined by Avaya Server
User ID	Defined by Avaya Server

Broadsoft Broadworks

FLX UC 1000	Call Manager
Registrar	<server domain name> (e.g. as.iop1.broadworks.net)
VoIP Realm	*
Username	Defined by Broadsoft Server (Verify on Server Web Page)
Password	Defined by Broadsoft Server (Verify on Server Web Page)
User ID	Defined by Broadsoft Server (Verify on Server Web Page)

Cisco Unified Communication Manager

FLX UC 1000	Call Manager
Registrar	<CUCM IP address>
VoIP Realm	ccmsipline
Username	User Defined
Password	User Defined
User ID	User Defined

Junction Networks OnSip Hosted PBX

FLX UC 1000	Call Manager
Registrar	<Domain>
VoIP Realm	*
Outbound Proxy	<Domain>
Username	Defined by OnSip Server (AuthUsername_username)
Password	Defined by OnSip Server
User ID	Defined by OnSip Server (username@AuthUsername)