

# REVOLABS FLX™ UC 1000 & REVOLABS FLX™ UC 1500

## IP & USB Conference Phone



## Installation and Operation Guide

### Models:

10-FLXUC1000

10-FLXUC1500

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Revolabs FLX UC1000/FLX UC1500 Installation and Operation  
Guide  
10-FLXUC1500-EN  
March 2016 (Rev 2.6.0)



## Online Resources

Resource	Website
Revolabs	<a href="http://www.revolabs.com">www.revolabs.com</a>
Revolabs FLX UC 1000	<a href="http://revolabs.com/products/product-line/flx-uc-1000">http://revolabs.com/products/product-line/flx-uc-1000</a>
Revolabs FLX UC 1500	<a href="http://revolabs.com/products/product-line/flx-uc-1500">http://revolabs.com/products/product-line/flx-uc-1500</a>
Customer Support	<a href="http://revolabs.com/support">http://revolabs.com/support</a>
Support by Product Line	<a href="http://revolabs.com/support/product-line">http://revolabs.com/support/product-line</a>

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## Product Overview

Thank you for choosing a FLX UC 1000 or FLX UC 1500 IP & USB Conference Phone by Revolabs. This conference phone allows you to communicate via your call manager and a softphone, messaging, video conferencing, or webinar application, as well as bridge these calls together. With the FLX UC products, call performance is built to be of the highest quality to ensure every word of the conversation is heard.

This document covers the FLX UC 1000 and the FLX UC 1500 as configuration of these products is similar. Where there is a difference in capabilities or configuration, the document will highlight that explicitly.



**Figure 1: FLX UC 1000 Base Unit & Dialer**



**Figure 2: Keypad Detail**

# Getting Started

## Connecting the Device

In the box, the FLX UC 1000 includes 1 Base Unit, 1 Dialer with captive cable, 1 Ethernet Cable, and 1 USB cable.

The FLX UC 1500 includes 2 extension microphones in addition to the items included with the FLX UC 1000.

To begin setting up the device, remove all the items from packaging.

On the bottom of the base unit are connections for the Ethernet, USB, and Dialer cables. The FLX UC 1500 has two additional connections for the extension microphones.

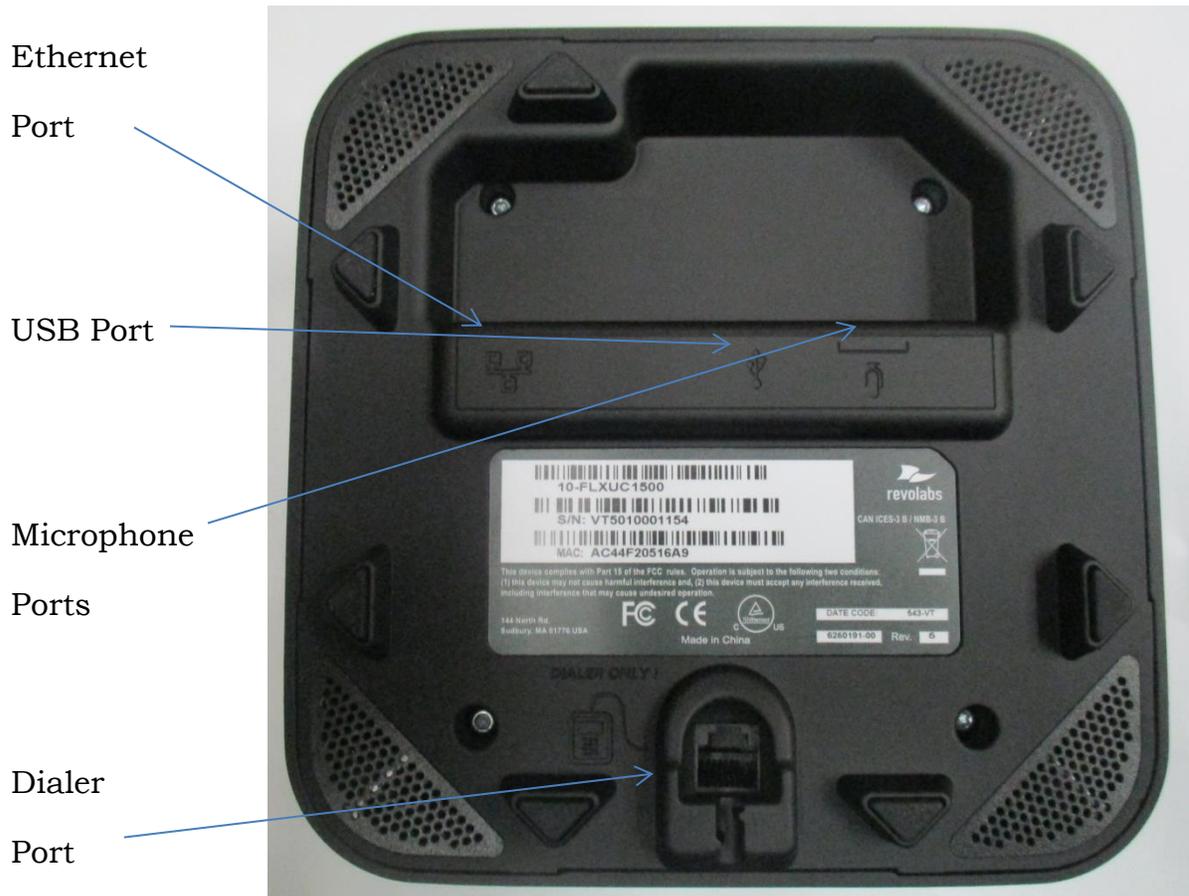


Figure 3: FLX UC 1000, Connector View

## Connecting the Dialer

With the dialer in hand, use the captive cable and insert the connector into the “Dialer Only” port on the base unit until it clicks into place.



Ethernet  
Connection

## Connecting to an IP Network for VoIP Calling

The FLX UC 1000 and FLX UC 1500 are designed to be powered using 802.3af, Power over Ethernet (PoE). If you have an Ethernet port that does not provide PoE, a PoE Power Injector can be ordered from Revolabs to provide the device with power.



Connect one end of the Ethernet cable into the network connection port on the bottom of the base unit using the port highlighted in the picture above. Press the Ethernet connector until it clicks into place. Connect the other end of the Ethernet cable into a jack providing PoE or a PoE adapter.

If the Ethernet cable needs to be removed from the FLX UC 1000 or FLX UC 1500, be sure to depress the plastic lever on the connection to the base unit and pull the cable out gently. Using force when removing this cable may damage the cable and render it useless.

Once connected to a power source, the device will begin the boot up process. 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 display the home screen.

In order to place and receive VoIP calls, your FLX UC 1000 or FLX UC 1500 will need to be registered with a call manager. See the section in this document called “Configuring the FLX UC 1000 or FLX UC 1500 for your VoIP Network” to register your device with a call manager. If desired, the device can be used with a computer with or without being connected to a call manager by following the directions in the “Connecting to a Computer” section.

## Connecting to a Computer

Using the included USB cable, connect the mini USB side of the cable into the port identified by the icon in the figure below.



Connect the other end of the cable to the USB port on the computer running the third party softphone, webinar, or conferencing application.

The computer may detect new driver software and install it; wait until the install has completed before continuing. A white USB symbol will be shown on the FLX UC 1000 or FLX UC 1500 dialer when the computer is connected.

For optimal audio performance when using a Window computers, please follow the instructions in the [appendix section](#). No additional configuration is required when using Apple OS X or Chrome OS devices.

If a USB cable longer than the length of the one provided is required, an approved USB extender should be used. The following USB extenders have been tested and approved for use with the FLX UC 1000 or FLX UC 1500. Please note the distance supported by each USB extender varies and is defined by the manufacturer's specifications:

- USB Ranger 2212 Cat 5 Extender (IC2212R-05-307276) from Icron Technologies
- USB 1.1 Rover 1850 Single Port Cat 5e extender from Icron
- Gefen USB 2.0 Extender
- Extron USB Extender

## Connecting Extension Mics

The FLX UC 1500 includes two ports on the base unit to connect the two wired extension microphones. Connect an extension microphone to one of the microphone ports on the base unit as identified in the picture below. Repeat for the second extension microphone.



## Component Overview

Depending on the system you have purchased you will have the following:

FLX UC 1000	FLX UC 1500
Base Unit	Base Unit
Dialer	Dialer
Ethernet Cable	Ethernet Cable
USB Cable	USB Cable
	Extension Microphones (Qty. 2)

### Base Unit



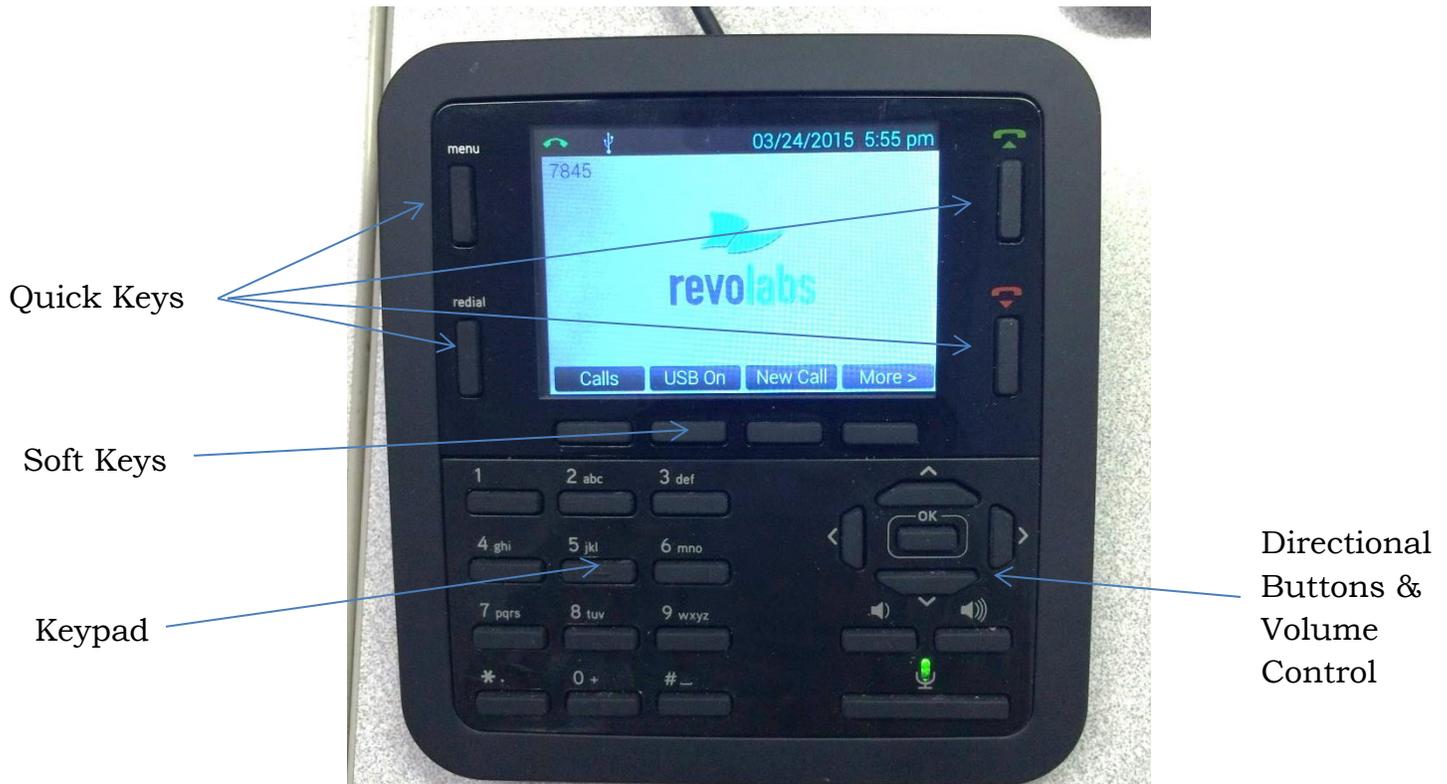
In both the FLX UC 1000 and FLX UC 1500, the base unit houses the speaker elements and four embedded microphones. On the top of the device are five capacitive touch buttons for: volume up, volume down, mute, answer call, and end call.

On the four corners of the base unit, LED lights display the call status. Three different states correspond to the color of the LEDs:

Call State	LED Color
In an active call	Green
Call Mute	Red
Idle	Configurable: Amber, Solid Green, or No Light

Ports on the bottom of the base unit are used to connect the dialer, the USB cable, and Ethernet cable for the FLX UC 1000, and additionally two extension microphones on the FLX UC 1500.

## Dialer



The dialer has four categories of buttons:

- Quick Keys: menu, redial, answer call/new call, hang up
- Soft Keys: 4 keys under the color display that correspond to changing menu options presented on the display
- Keypad: for entering numbers, letters, and special characters
- Directional, Volume Control and Mute: for navigating the menus on the display, adjusting the volume and toggling mute on/off

### Quick Keys

The Menu button provides access to the main menu for the FLX UC 1000 or FLX UC 1500. When already in a menu or submenu, pressing the menu button will return the display to the home screen.

The Redial button will redial the last number used to place an outgoing call.

Answer Call/New Call and End Call buttons provide the same features as the capacitive touch buttons on the top of the base unit. The Answer Call/New Call Button, labeled with the green phone icon, provides the ability to answer an incoming call. It can also be used to open the dialer menu to place a new call.

The End Call Button, labeled with the red phone icon, provides the ability to disconnect from an existing call.

### **Soft Keys**

Soft keys are used to navigate through menu options, and each button corresponds to the grey box on the display above the button. The soft keys provide different options depending on the current dialer screen.

If a menu has more than four options the soft key on the far right will correspond to an option for [MORE>]. Pressing this key will navigate to the next set of menu options. In the second set of menu options the soft key on the far right will correspond to an option for [<MORE] to allow navigation back to the first set of menu options.

Some menus have less than four options. When this happens the space above unused soft keys will be blank to indicate the soft keys that have no function on the screen.

### **Keypad**

The keypad provides access to numbers, alphabet characters, and special keys such as \*, #, space, and period which are typical on phone keypads.

When entering contacts in the FLX UC 1000 or FLX UC 1500, the keypad buttons can be used to enter the alphanumeric values. When the button is first pressed, the first letter shown above the button will be entered in lower case. By pressing the button subsequent times, the character will iterate through the other lower case letters, then the number, then upper case letters. This sequence will repeat again from the beginning if the end of the series is reached and the button is pressed again.

For example, the number “2” provides access to the letters a, b, and c; when depressed multiple times, this button would iterate through the following sequence:

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

The button with “1” provides no other characters.

The \* key cycles through the following sequence:

\* . , - \_ ( ) @ and then repeats

The # key cycles through the following sequence

# *space* and then repeats (*space* is a “ ”)

When dialing a number that begins with a plus sign (“+”), press and hold the 0 button until the “+” appears.

### ***Directional, Volume Control & Mute***

The directional buttons include left, right, up, down to navigate menu options and “OK” for making a selection.

In general, the up and down keys are used to select different submenu options, where the right and left keys are used to select new menus or return to the previous menu.

Pressing the “OK” button corresponds to one of two actions on the display: [Select] to select menus or toggle configuration items, or [Back] to exit the menu and return to the previous parent menu.

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.

The volume control and mute buttons perform the same function as the buttons on the base unit. The speaker volume can be increased or decreased using the volume up and volume down buttons. The microphones on the FLX UC 1000 and FLX UC 1500 are muted using the mute button on the dialer. The mute/unmute button is only functional during an active call or when USB audio is active.

## User Interface

### Base Unit

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.

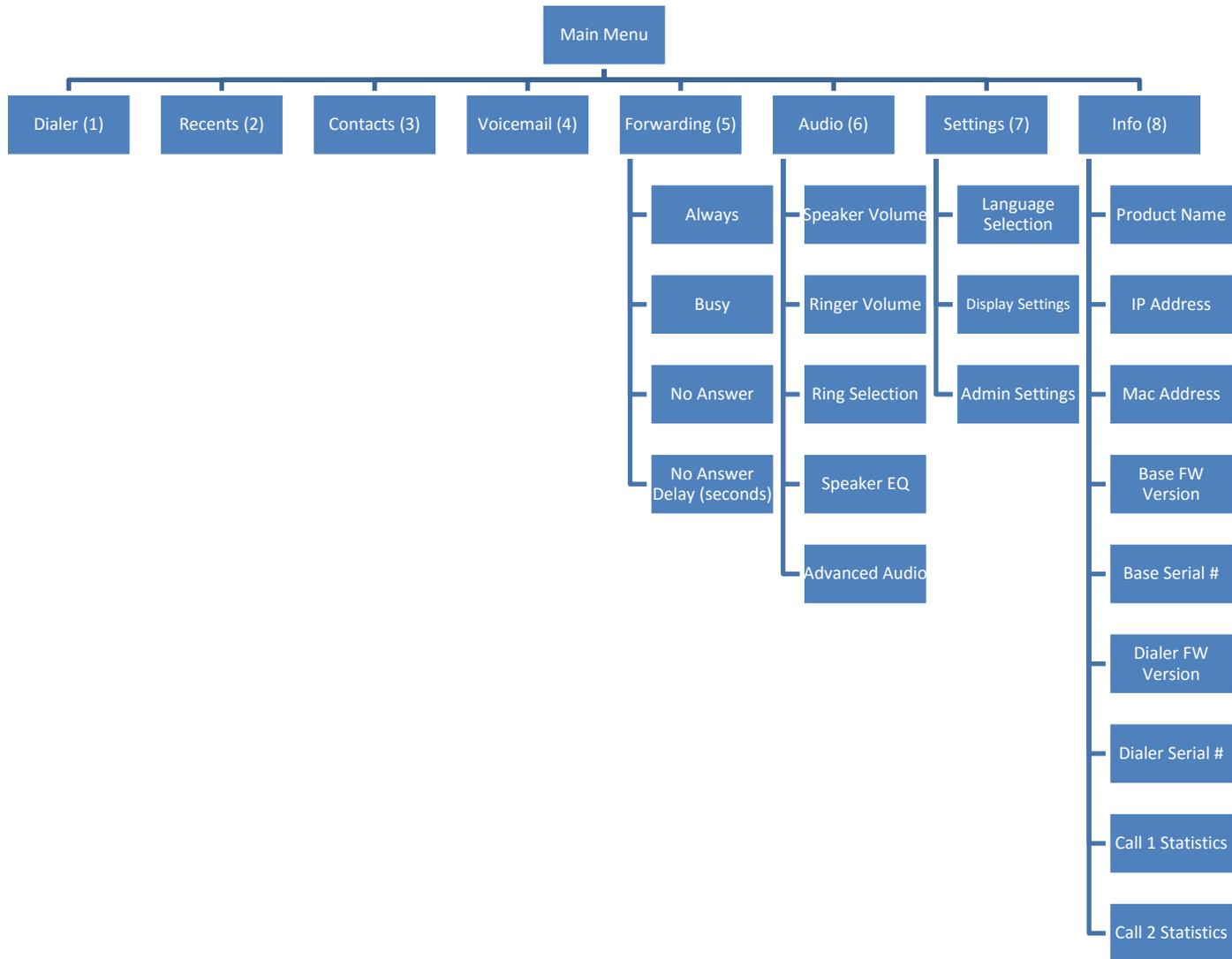
When not in a call, the lights can be configured for an idle color with options of solid amber, solid green, or unlit (default). In order to change this color, an administrator can log into the [web UI](#) or use the settings menu on the dialer to configure the desired idle color.

For additional call control functionality, i.e. using the device buttons to hang up and answer calls using the preferred third party softphone, webinar, or conferencing application, refer to section in this manual on [FLX UC Device Manager](#).

### Dialer

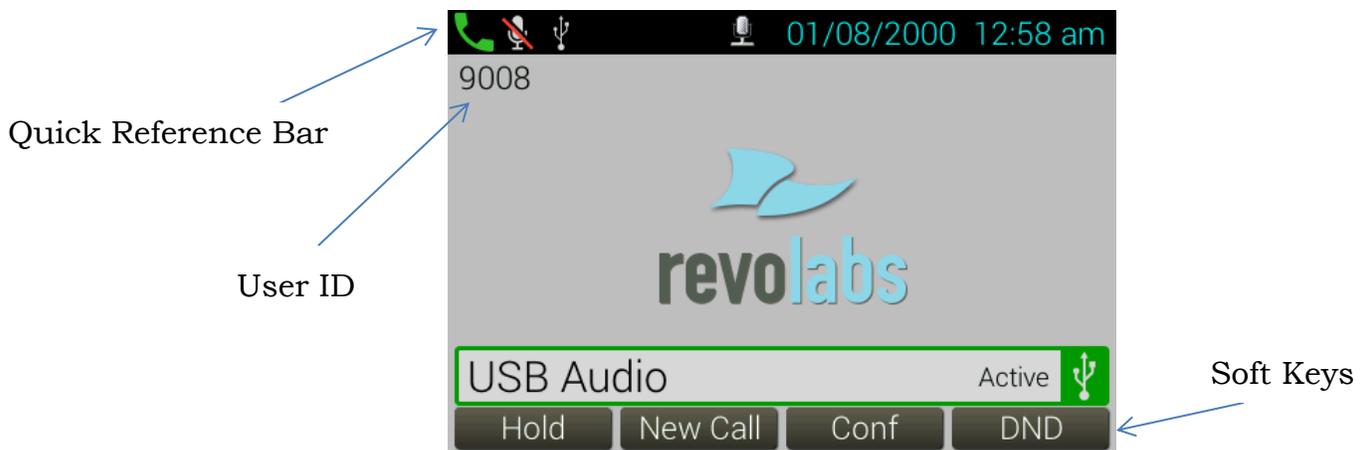
The display on the dialer presents a series of screens as an interface for using the device and configuring device settings. The details of those screens are described in this section.

## Menu Tree



## 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 regarding 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 or FLX UC 1500 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 side of the screen.

The soft key menu options are available at the bottom of the screen. Refer to the section on [Soft Keys](#) for additional details about these buttons. depending

on how the USB interface has been configured, the home screen menu options for the soft keys are as follows:

When the USB port is configured User Determined (the default)

- [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
- [More >]

After pressing [More >]

- [DND]: Toggles Do Not Disturb mode
- [Contacts]: Opens the Contacts menu
- 
- [< More]

When the USB port is configured Always On

- [Hold]: Places the current call (USB audio) on hold
- [New Call]: Opens the Dialer menu
- [Conf]: Adds a new call to the existing (USB audio) call
- [DND]: Toggles Do Not Disturb mode

When the USB port is configured Always Off

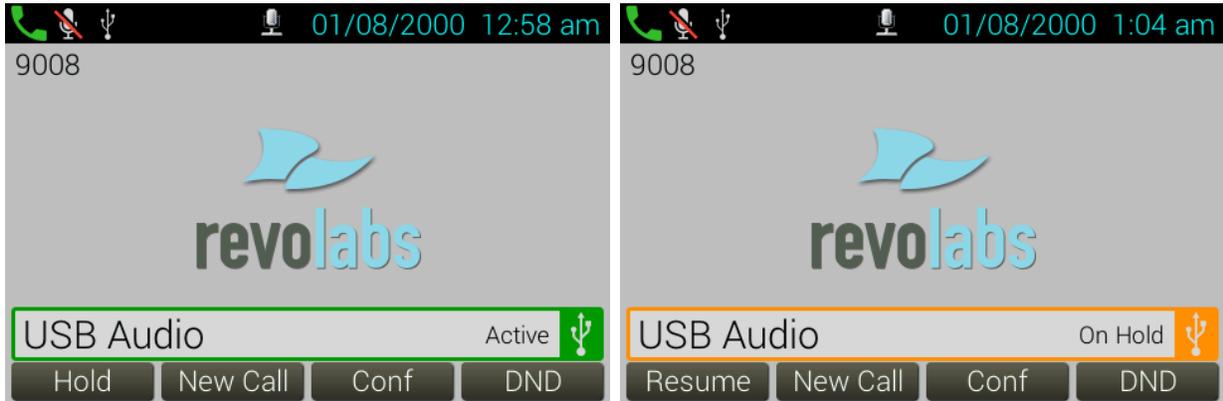
- [Calls]: Redirects to the Recent Calls menu
- [New Call]: Opens the Dialer menu
- [DND]: Toggles Do Not Disturb mode
- [Contacts]: Opens the Contacts menu

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 two simultaneous calls, will take up the top two-thirds 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 three simultaneous calls: two VoIP and the one USB line can be active on the FLX UC 1000 or FLX UC 1500 at one time.

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

- Incoming Call: Yellow
- Call in Progress/Active: Green

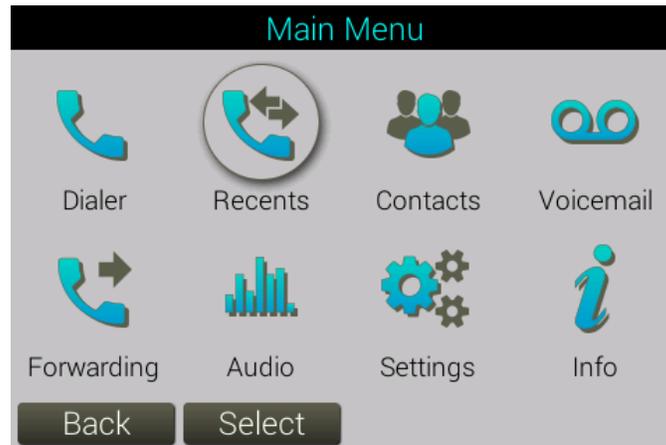
- On Hold: Orange
- Call Ended: Red



### **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.



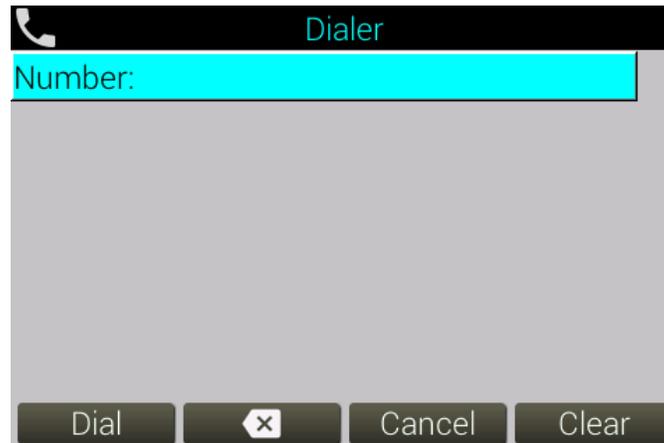
Alternatively, you can also press the number corresponding to the option:

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*

When New Call is pressed from the home screen, or 1 – Dialer from the main menu, the following screen is shown. The keypad is used to enter a phone number which is displayed after the word “Number:.” To dial a number that begins with a plus sign (“+”), press and hold the 0 button until the “+” appears.



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 (the green Call button on the base cannot be used to attempt to dial the number – pressing the green Call button on the base clears the number, takes the phone off hook, and the user hears dial tone).
- <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:

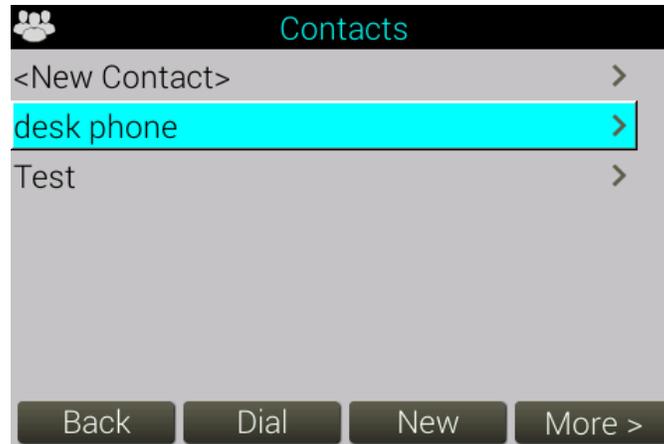
- Name
- Number
- Time (Date and time of call)
- Duration
- Type of Call: Missed, Dialed, Received

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

You can use the web UI to disable changing the recent calls list from the Dialer.

### *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 set as the default number by selecting the “OK” button while the number is highlighted – a green radio button icon is shown to the right of the default number.

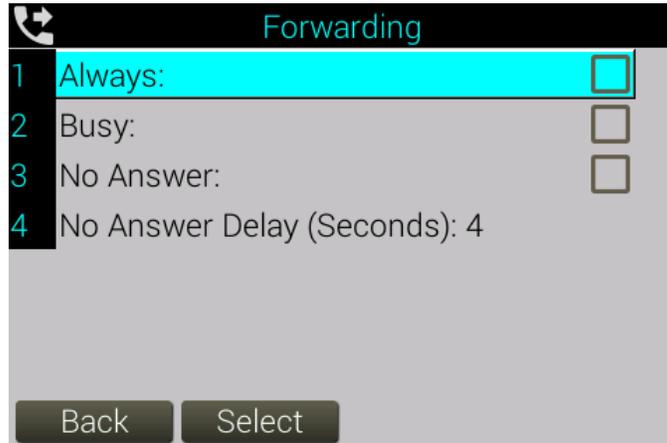
At the bottom of the submenu, the contact can be assigned a speed dial number. The speed dial menu shows available speed dial numbers. To allocate the contact to a speed dial number, hold down the button on the keypad with the corresponding number, or highlight an available number and press the Assign soft key.

When using speed dial to call a contact, the FLX UC 1000 or FLX UC 1500 will use the default number for that contact.

To save a new contact, save edits to an old contact, or set a speed dial, the contact must have a phone number set in one of the phone number fields.

You can use the web UI to disable changing contacts from the Dialer.

### Call Forwarding



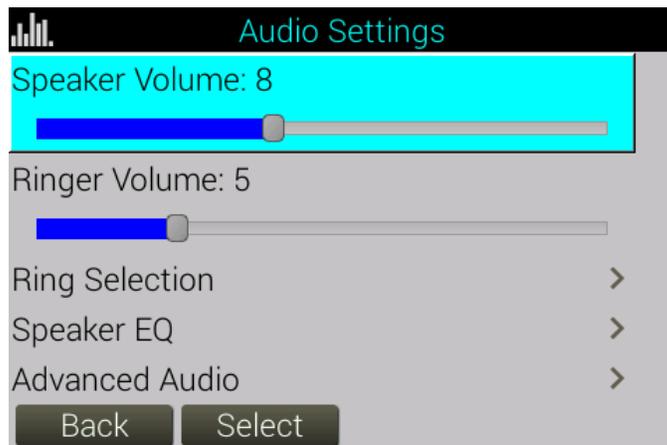
Call forwarding can be toggled on for all calls, calls when the line is busy, and calls not answered in a set amount of time.

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.

You can use the web UI to disable changing call forwarding settings from the Dialer.

### 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.

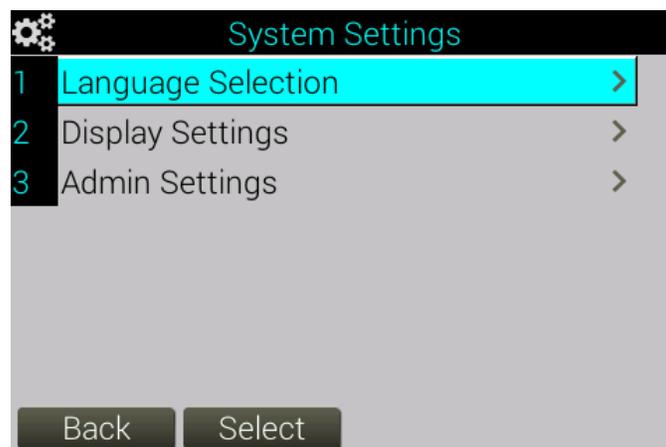
Advanced Audio opens a menu that only has the High Pass Filter menu in it. In the High Pass Filter menu, this filter can be set to None, 110 Hz, 140 Hz, 175 Hz, or 225 Hz.

You can use the web UI to disable changing ring selection, speaker EQ, and advanced audio settings from the Dialer.

### *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. You can use the web UI to disable changing the language from the Dialer.

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 that requires 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, VLAN Settings can be set, USB 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.

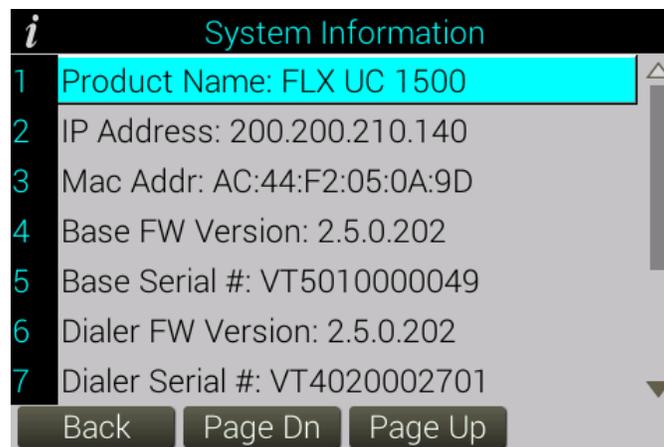
Turning off Recent Calls brings up a popup asking “Do you want to clear the recent call list?”

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 #:
- Extn. Mic. 1: (available on FLX UC 1500)
- Extn. Mic. 2: (available on FLX UC 1500)
- Call 1 Statistics
- Call 2 Statistics

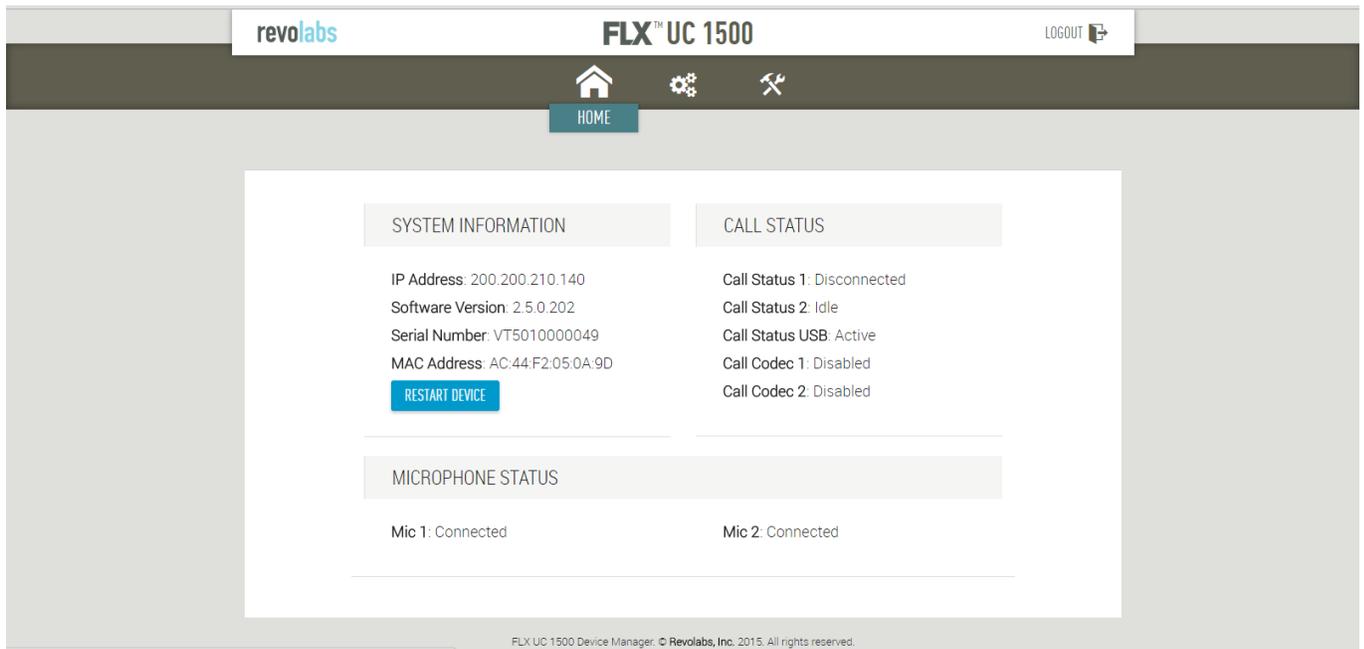
## Web User Interface (Web UI)

Once the IP address of the FLX UC 1000 or FLX UC 1500 is identified from the Info menu on the dialer, this can be used to access the Web UI.

Using an internet browser, type the IP address for the device into the browser address bar and press enter. This will open the login page for the product. A password will need to be entered in order to log in to the device. If the device has not had its password changed, the default is 7386. If you set a new password prior to logging in to the web UI on the dialer in Admin Settings, the new password will be required to access the menus. If desired, there is an option to stay logged into the device on this screen underneath the password bar. If this parameter is checked, the computer will not log out of the device automatically, and the user will need to log out when finished with configuration changes.

The first screen displayed after logging in will be the home screen. The device can be configured using the Web UI by changing the parameter and pressing submit at the upper right of the configuration page to save those changes. If the information is not saved, the information change will need to be re-entered. There is no auto-save.

In order to logout of the device, use the logout button on the upper right corner of the Web UI.



## **Home Screen**

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

- House Icon
- Gears Icon
- Tools Icon

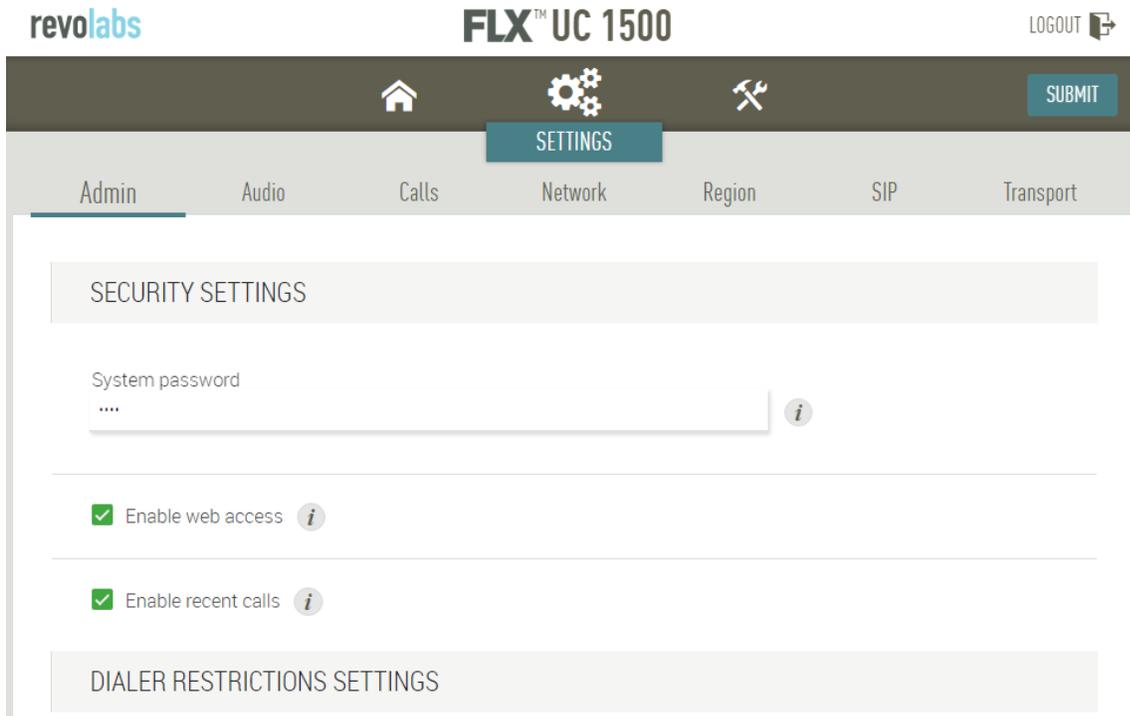
Clicking the House icon will bring you back to the home screen from the other pages on the site.

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 enabling recent calls can be toggled.

Under Dialer Restrictions Settings several features can be disabled on the Dialer UI, including audio settings (ring selection, speaker EQ, and high pass filter), dialer language, call forwarding, recent call list, contacts, and DND.

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, automatic server discovery can be toggled on or off, deployment server address can be specified, and the provisioning time interval can be set.

The system password required format is numerical and at least four digits long. It is the same password entered with the keypad to access the Admin Settings on the Dialer. The default password is 7386.

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 recent calls off will bring up a popup asking if the existing recent calls list 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*

Ring tone 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.

“Set Do Not Disturb mode” 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. For Dial Plan instructions see the Advanced Operations section below.

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, Subnet, Default Gateway, and DNS server 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.

Authentication Settings also provides the option to enable 802.1x authentication. See the Advanced Operations section below.

#### *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.

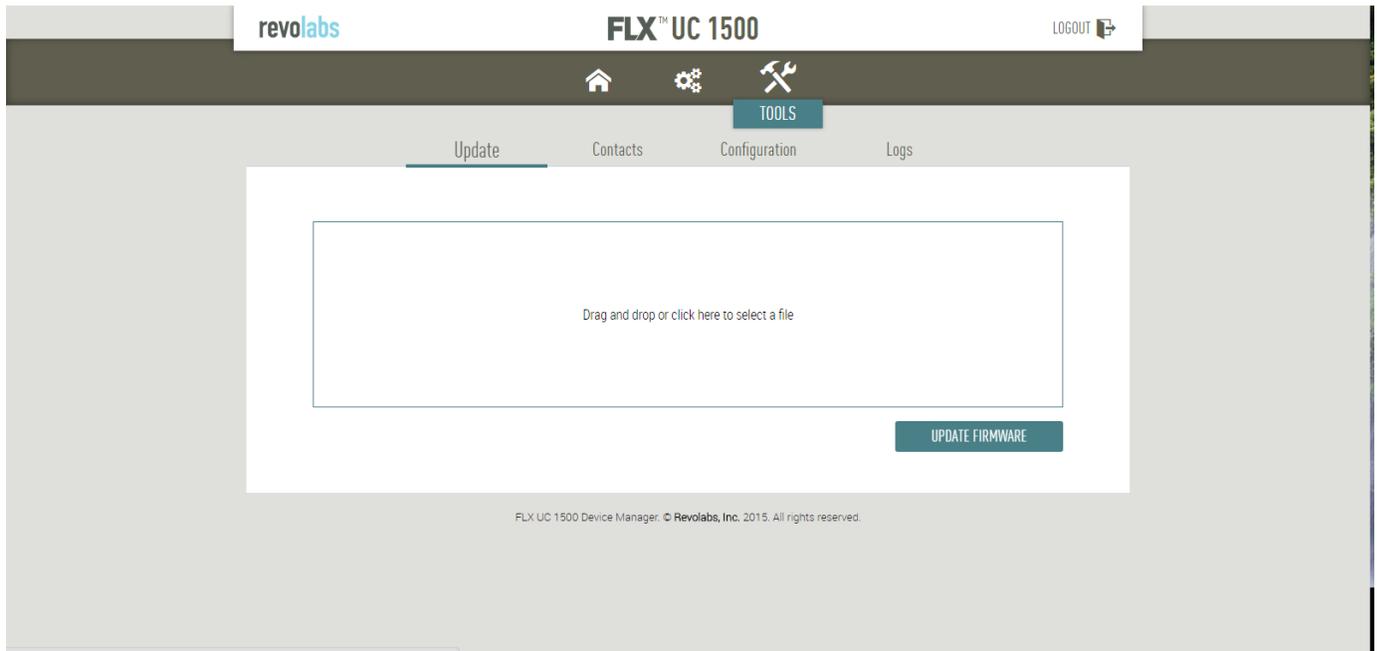
### *SIP*

This menu is where the VoIP configuration settings are located for setting up the FLX UC 1000 or FLX UC 1500 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 or FLX UC 1500 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 or FLX UC 1500. 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 in a granular way by selecting which parts of the configuration to reset to defaults and then clicking the “Reset Defaults” button. Restore to Factory Defaults removes the entire configuration.

### *Logs*

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

## Basic Operations

Prior to making any calls on the FLX UC 1000 or FLX UC 1500 using VoIP, the conference phone must be registered with a call manager. See Configuring the FLX UC 1000 or FLX UC 1500 for your VoIP Network

### Dialing a Number

There are two ways to dial a number from the FLX UC 1000 or FLX UC 1500 dialer.

To immediately dial a number, press the green answer button and enter the number using the buttons on the keypad, similar to dialing on a standard phone. If you make a mistake, you can [Clear] the number, which brings up the dial number menu to start again, or press the Hang Up Call or the [Cancel] soft key to terminate the call.

Alternatively, from the home screen on the Dialer, enter the “Dialer” menu using either the [New Call] soft key along the bottom of the screen or from the Main Menu select the “Dialer” menu arrow keys or press the number “1”. Once in the dial number menu enter the numbers to be dialed using the keypad buttons. The call is not initiated until the [Dial] or green answer buttons are selected, similar to how a smartphone works. Prior to pressing [Dial] or selecting the green answer buttons, use the [<x] button at the bottom of the screen to delete numbers, or press the [Clear] button to empty the whole number and start again.

To dial a number that begins with a plus sign (“+”), press and hold the 0 button until the “+” appears.

### Redialing a Number

The Redial button will redial the last number used to place an outgoing call.

To redial a number from the recent calls list, from the home screen use the [Calls] button at the bottom of the screen, or from the Main Menu select the “Recents” menu with the arrow keys or press the number “2”.

Select the previously used number from the Recent Calls list with the up and down arrow keys, then press the green answer button to initiate the call, or choose [More >] soft key and then press the [Dial] soft key at the bottom of the screen to redial that number.

## Dialing a Contact

If the phone is configured for USB Always Off or USB User Determined, from the home screen, enter the “Contacts” menu by selecting [More >] and then [Contacts] using the soft keys at the bottom of the screen. Alternatively, 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] soft key at the bottom of the screen or press the green answer buttons. 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] soft key at the bottom of the screen or press the green answer buttons.

The default number of the contact is the one with the green radio button 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 desired call with the up or down arrow keys, and then press the [Resume] button at the bottom of the screen. This will switch the selected 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. Alternatively, press the red hang-up buttons on either base or the dialer.

## 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 or FLX UC 1500

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 or FLX UC 1500, verify the volume settings and speaker mute settings on the PC to ensure the system is not muted and the volume level is not at its minimum. Verify that the FLX UC 1000 or FLX UC 1500 is chosen as the Default Audio device in the PC Sounds menu, and that USB is on via the dialer. 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 on how to use this software](#).

## Setting up a Conference Call

The FLX UC 1000 or FLX UC 1500 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 FLX UC 1000 and FLX UC 1500 support a maximum of three lines for incoming and 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/FLX UC 1500 will receive a busy tone, or if call forwarding is configured, will be redirected to the call forwarding number. This feature can be configured using the dialer or the web UI.

# Configuring the FLX UC 1000 or FLX UC 1500 for your VoIP Network

This section will provide details of how to configure the device to connect 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 or FLX UC 1500 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 or FLX UC 1500 to connect to the VoIP network – using the dialer, from the Web UI, or using a provisioning server with DHCP Option 66 or 150 as described below.

## 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 is not required.

## Through Provisioning Server, using Option 66

A sample configuration file is available in the section “Provisioning configuration file sample.”

1. Configure the TFTP server name into the DHCP server option 66 string.
2. Upload the configuration file with the FLX UC 1000 or FLX UC 1500 firmware bundle onto the TFTP server identified by the DHCP server option 66 string. The device configuration file must be named with the FLX UC 1000 or FLX UC 1500’s 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.

## Through Provisioning Server, using Option 150

A sample configuration file is available in the section “Provisioning configuration file sample.”

1. Configure the TFTP server addresses into the DHCP server option 150, depending on the DHCP server type, the TFTP server addresses could be specified by various syntax rules, for instance, on Cisco ASA Firewall DHCP server, option 150 can be configured through following CLI command,

```
dhcpd option 150 ip <server ip1> <server ip2>
```

while on Redhat ISC DHCP server, the option 150 should be declared in this manner in the dhcpd.conf,

```
option tftp-server-name <server ip1> ,<server ip2>;
```

Please refer to your DHCP server user guide/instructions to ensure the option 150 is properly configured.

2. Upload the configuration file with the UC 1000 firmware bundle onto the TFTP server identified by the DHCP server option 150 string. The device configuration file must be named with the phone mac address.
3. No reboot of the system is required. On successful configuration, the phone screen will display the phone number associated with the line.

## Provisioning configuration file sample

The provisioning file is in xml format. The “config” tag contains all configuration settings that pertain to the device, while the “firmware” tag includes the latest firmware version and firmware file name.

### Device configuration file without include files.

Filename: F0DEF1A064E6.xml (this is the MAC address of the device)

```
<provisioning>
```

```
  <firmware version="2.6.0.294">FLX-UC-1500-2-6-0-294.bundle</firmware>
```

```
  <config display.backlight-time="3" display.brightness="7" net.dot1x-cert-path=""
net.dot1x-anonymous-identity="" net.dot1x-password="" net.dot1x-identity=""
net.dot1x-auth-method="MD5" net.dot1x-enabled="0" net.ntp4="3.pool.ntp.org"
net.ntp3="2.pool.ntp.org" net.ntp2="1.pool.ntp.org" net.ntp1="0.pool.ntp.org"
net.vlan-id="" net.vlan="2" net.dns2="" net.dns1="" net.gateway="" net.subnet=""
net.ip="" net.dhcp="1" sys.ui-mask="0" sys.provisioning-interval="1440" sys.led-
behavior="0" sys.recent-call-enabled="1" sys.dst-end-rules="11:1:1:2" sys.dst-start-
rules="3:2:1:2" sys.dst-enabled="1" sys.time-zone="13" sys.twenty-four-hour-
time="0" sys.date-format="MM/DD/YYYY" sys.region="23" sys.language="1" sys.web-
enabled="1" audio.usb-audio="3" audio.low-pass-filter="0" audio.eq="1" audio.ring-
tone="0" audio.ringer-volume="7" audio.speaker-volume="7" voip.do-not-disturb="0"
voip.noanswer-delay="4" voip.noanswer-forwarding-num="" voip.noanswer-
forwarding="0" voip.busy-forwarding-num="" voip.busy-forwarding="0" voip.always-
forwarding-num="" voip.always-forwarding="0" voip.mwi="0" voip.duration="0"
voip.auto-answer="0" voip.ptime="20" voip.codec5="5" voip.codec4="4"
voip.codec3="3" voip.codec2="2" voip.codec1="1" voip.set-qos="0" voip.turn-tcp="0"
voip.turn-passwd="" voip.turn-user="" voip.turn-srv="" voip.use-turn="0" voip.ice-no-
rtcp="0" voip.ice-max-hosts="5" voip.ice-regular="1" voip.use-ice="0" voip.stun-
srv="" voip.local-port="5060" voip.udp-tcp-selection="0" voip.rtp-port="4000"
voip.use-srtp="0" voip.vm-number="" voip.media-onhold-method="0" voip.dtmf-
method="0" voip.min-size="0" voip.allow-strict="0" voip.no-refer-sub="0" voip.auto-
update-nat="1" voip.use-100rel="0" voip.timer-min-se="90" voip.timer-se="1800"
voip.use-timer="1" voip.rereg-delay="300" voip.reg-timeout="60" voip.realm=""
voip.reg-use-proxy="0" voip.proxy="" voip.registrar-backup=""
voip.registrar="200.200.210.240"/>
```

```
</provisioning>
```

## Device configuration file with include files

Provisioning files can include references to other provisioning files. This feature is useful when you have settings that are common across many systems in your organization. For example, you could create “include” files at the enterprise level and at the department level, which would simply be referenced by name in the individual system provisioning files. Below are sample files that follow this scheme, starting with a device file that includes both an enterprise.xml file and a department.xml file.

### *Device configuration file*

Filename: **F0DEF1A064E6.xml** (this is the MAC address of the device)

```
<provisioning include="enterprise.xml, department.xml">
    <config voip.id="test" voip.name="test" voip.user="test" voip.password="test" />
</provisioning>
```

### *Include files*

Filename: **enterprise.xml**

```
<provisioning>
    <firmware version="2.6.0.294">FLX-UC-1500-2-6-0-294.bundle</firmware>
    <config voip.registrar="200.200.210.240" voip.registrar-backup=""/>
</provisioning>
```

Filename: **department.xml**

```
<provisioning>
    <config display.backlight-time="3" display.brightness="7" net.dot1x-cert-path=""
net.dot1x-anonymous-identity="" net.dot1x-password="" net.dot1x-identity=""
net.dot1x-auth-method="MD5" net.dot1x-enabled="0" net.ntp4="3.pool.ntp.org"
net.ntp3="2.pool.ntp.org" net.ntp2="1.pool.ntp.org" net.ntp1="0.pool.ntp.org"
net.vlan-id="" net.vlan="2" net.dns2="" net.dns1="" net.gateway="" net.subnet=""
net.ip="" net.dhcp="1" sys.ui-mask="0" sys.provisioning-interval="1440" sys.led-
behavior="0" sys.recent-call-enabled="1" sys.dst-end-rules="11:1:1:2" sys.dst-start-
rules="3:2:1:2" sys.dst-enabled="1" sys.time-zone="13" sys.twenty-four-hour-
time="0" sys.date-format="MM/DD/YYYY" sys.region="23" sys.language="1" sys.web-
enabled="1" audio.usb-audio="3" audio.low-pass-filter="0" audio.eq="1" audio.ring-
tone="0" audio.ringer-volume="7" audio.speaker-volume="7" voip.do-not-disturb="0"
voip.noanswer-delay="4" voip.noanswer-forwarding-num="" voip.noanswer-
forwarding="0" voip.busy-forwarding-num="" voip.busy-forwarding="0" voip.always-
```

```
forwarding-num="" voip.always-forwarding="0" voip.mwi="0" voip.duration="0"
voip.auto-answer="0" voip.ptime="20" voip.codec5="5" voip.codec4="4"
voip.codec3="3" voip.codec2="2" voip.codec1="1" voip.set-qos="0" voip.turn-tcp="0"
voip.turn-passwd="" voip.turn-user="" voip.turn-srv="" voip.use-turn="0" voip.ice-no-
rtcp="0" voip.ice-max-hosts="5" voip.ice-regular="1" voip.use-ice="0" voip.stun-
srv="" voip.local-port="5060" voip.udp-tcp-selection="0" voip.rtp-port="4000"
voip.use-srtp="0" voip.vm-number="" voip.media-onhold-method="0" voip.dtmf-
method="0" voip.min-size="0" voip.allow-strict="0" voip.no-refer-sub="0" voip.auto-
update-nat="1" voip.use-100rel="0" voip.timer-min-se="90" voip.timer-se="1800"
voip.use-timer="1" voip.rereg-delay="300" voip.reg-timeout="60" voip.realm="*"
voip.reg-use-proxy="0" voip.proxy=""/>
```

</provisioning>

## Advanced Operations

### 802.1x

The FLX UC 1000 and FLX UC 1500 support 802.1x authentication.

Log into the Web UI, and Enable the 802.1x setting for the device. Select the 802.1x authentication type and specify the required credentials depending on whether the network is using MD5 authentication or Protected EAP (Protected Extensible Authentication Protocol).

The server-side public key certificate will need to be installed on the FLX UC 1000 or 1500. A username and password are needed to complete the authentication process.

## Dial Plan

The FLX UC 1000 and FLX UC 1500 support the use of a dial plan to make calls.

### Dial Plan Overview

A dial plan serves several purposes. In legacy mode, it can be used to trigger when the accumulated digits are passed on to stack (a "match"). In legacy and block mode it can be used to remove or replace digits, ie append a '9' as a prefix to access an outside line (a "match"). It can be used to reject calls to specific numbers, ie 900xxxxxxx calls. In a typical PBX configuration the reject is done by a dial plan in the PBX, but reject was simple enough to include in the phone dial plan.

The dial plan is generic enough that it is used for both "legacy dialing mode" and "block dialing mode". When a digit string is passed to the dial plan check function, the function returns "no match", "match" or "reject". If "reject" is returned, the dial string will NOT be sent to the SIP stack and the call manager will play a busy tone out and report "failed" to the core.

If a dial plan is not set, dialing complete in legacy mode is triggered by a timeout at which point the accumulated digit string is passed to the SIP stack. For block mode, the digit string is passed directly to the SIP stack.

If a dial plan is set up, dialing complete in legacy mode is triggered by either a "match" or "reject" from the dial plan check or a timeout. For block mode, the string is passed to the dial plan check. Only a "reject" will cause it NOT to be dialed - both "match" and "no match" results in the string being passed to the SIP stack to dial.

## Dial Plan Syntax

Dial plans consist of a series of dial digits (0..9, \*, #) and modifiers ('x', '[]', '!', '<:>', ',', '^', '{}') separated by '|'

Modifier defines:

'x' is a wildcard to match any numeric digit ('0' .. '9')

'[]' is a range

[389] means '3' or '8' or '9'

[3-9] means '3' or '4' or ... or '8' or '9'

'!' means repeat i.e. "01." matches "0", "01", "011", "0111", etc.

'<:>' is for substitution: '<' dialed subsequence ':' transmitted subsequence '>'

"<8:1650>xxxxxxx" would match "85551212" and dial "16505551212"

note: Polycom uses RRR to replace i.e. R9R600R replaces 9 with 600

',' is to generate inter-sequence tones: "9,1xxxxxxxxx" sounds dial tone after the user presses '9' until '1' is pressed.

'!' is used to reject a sequence by placing it at the end of the sequence

"1900xxxxxxxx!" will reject 900 area code numbers

'^' is used to exclude digits in the set of the range []

examples:

[^15] includes 0, 2, 3, 4, 6, 7, 8, 9 i.e. [02346789]

[^2-4] includes 0, 1, 5, 6, 7, 8, 9 i.e. [0156789] \*/

The above modifiers are part of "DRegex" as defined in RFC4730.

## Syntax Examples

The following examples shows the semantics of the <:> syntax:

- <9:>xxxxxxx—Remove 9 at the beginning of the dialed number
  - For example, if a customer dials 914539400, the first 9 is removed when the call is placed.
- <:604>xxxxxxx—Prepend 604 to all seven digit numbers
  - For example, if a customer dials 4539400, 604 is added to the front of the number, so a call to 6044539400 is placed.
- <9:604>xxxxxxx—Replaces 9 with 604
- <999:911>—Convert 999 to 911
- xx<601:600>xx—When applied on 1160122 gives 1160022
- x<60x:600>xxxxxxx —Any 60x will be replaced with 600 in the middle of the dialed number that matches
  - For example, if a customer dials 16092345678, a call is placed to 16002345678.

## Dial Plan Examples:

This dial plan accepts only US-style 1 + area-code + local-number, with no restrictions on the area code and number:

- 1 xxx xxxxxxxx

This also allows seven-digit US-style dialing, and automatically inserts a 1 + 212 (local area code) in the transmitted number:

- 1 xxx xxxxxxxx | <:1212> xxxxxxxx

For an office environment, the following plan requires a user to dial 8 as a prefix for local calls and 9 as a prefix for long distance. Neither prefix is transmitted when initiating the call.

- <9:>1 xxx xxxxxxxx | <8:1212>xxxxxxx

This allows US-style long distance, but blocks 9xx area codes:

- 1 [2-8]xx [2-9]xxxxxx

This allows arbitrary long distance dialing, but explicitly blocks the 947 area code:

- 1 947 xxxxxxxx ! | 1 xxx xxxxxxxx

The following allows only US-style 1 + area-code + local-number, but disallows area codes and local numbers starting with 0 or 1. It also allows 411, 911, and operator calls (0):

- 0 | [49]xx | 1 [2-9]xx [2-9]xxxxxx

## Device Manager

The FLX UC 500 has native support for the volume, mute and call controls for a number of softphones, conferencing or webinar applications. Where native support is provided, no additional software needs to be loaded on the PC, Mac or Chromebook device. The current list of natively supported applications can be found on the Revolabs product support webpage:

FLX UC 1000: <http://revolabs.com/support/product-line/uc-1000>

FLX UC 1500: <http://revolabs.com/support/product-line/uc-1500>

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 or FLX UC 1500, and configuration for launching upon windows start-up.

## Third Party Applications Supported

For a list of currently supported third-party applications and versions, see the Revolabs product support webpage:

- FLX UC 1000: <http://revolabs.com/support/product-line/uc-1000>  
FLX UC 1500: <http://revolabs.com/support/product-line/uc-1500>

## Installation & Third Party Application Configuration

### For Windows

1. Download the firmware bundle from the product support webpage.

FLX UC 1000: <http://revolabs.com/support/product-line/uc-1000>

FLX UC 1500: <http://revolabs.com/support/product-line/uc-1500>

Double click the set up file in the folder to install the application on your PC.

2. Navigate to Start > All Programs > Revolabs > FLX UC Device Manager and open the application.
3. Connect the device to the PC. Device drivers should be installed when the unit is connected to the computer.

4. Click on Settings and select the application you want to use from the drop down menu.
  - a. If you are using Skype, click Configure to bring up a menu allowing application-specific configuration of the hot keys for hang-up and answer.
  - b. For all other softphone applications, click OK.

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

### **For Mac**

1. Download the firmware bundle from the product support webpage.

FLX UC 1000: <http://revolabs.com/support/product-line/uc-1000>

FLX UC 1500: <http://revolabs.com/support/product-line/uc-1500>

2. Double click on the .dmg file.
3. When prompted, drag the FLX UC Device Manager to the Applications folder.
4. Connect the device 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.

### **For Chromebook**

1. Obtain the Chrome version of the Device Manager from Google’s Chrome Web Store: <https://chrome.google.com/webstore/category/apps>
2. Search for the application by company (“Revolabs”) or by product name (“FLX UC 1000” or “FLX UC 1500”).
3. Follow the instructions provided through the app store to install the Chrome version of the Device manager.

# Upgrading the 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 DHCP Option 66 or 150.

## **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.

<b>Model Number:</b>	<b>Description:</b>
10-FLXUC1000	FLX UC 1000
10-FLXUC1500	FLX UC 1500

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

### Call Control Functionality Details per Third Party Application

#### Using Windows Computers

Application	Off Hook Key	On Hook Key
Broadsoft UC-One	Answer	Hang-up, Reject
Cisco IP Communicator	Answer, Redial	Hang-up
Cisco Jabber	Answer	Hang-up, Reject
GoToMeeting	N/A	End Meeting
Microsoft Lync	Answer	Hang-up, Reject
Skype	Answer	Hang-up, Reject
Vidyo	N/A	End Meeting
WebEx	N/A	End Meeting
X-Lite	Answer	Hang-up

#### Using Apple Computers

Application	Off Hook Key	On Hook Key
Cisco Jabber	Answer	Hang-up
GoToMeeting	N/A	End Meeting
Microsoft Lync	Answer	Hang-up
Skype	Answer	Hang-up
Vidyo	N/A	End Meeting, Reject
WebEx	N/A	End Meeting
X-Lite	Answer	Hang-up
Zoom	Answer	End Meeting, Reject

## Known Issues

This section includes the known issues with Build 294 of the FLX UC 1000 and FLX UC 1500.

1. Call control (i.e. call hang up and answer) not supported for Skype version 6.22 or higher for Windows and Mac platforms.
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 3.5.2 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.
4. The FLX UC 1000 uses hotkeys to issue commands to applications that do not provide an API for call control. When using hotkeys, the softphone window that is active will have the hotkey issued to it. This may cause the user to have to press the accept call button multiple times or notice a delay when attempting to answer an incoming call.
5. If a caller attempts to create a conference or transfer a call with another line, and the other line disconnects the call prior to that conference or transfer taking place, the Dialer display appears to be frozen – no key presses are accepted. Rebooting the device by unplugging and plugging back in the Ethernet cable will bring the system back to a good state.
6. In a conference call with 3 users – Caller A, B, and C, where Caller A is a UC 1000, and Callers B and C are connected via VoIP calls. If Caller B or C hangs up on the conference and attempts to ring Caller A, the display will not permit Caller A to receive the call as it is being occupied by the conference. Once the conference is ended on Caller A's UC 1000, the system will operate normally.
7. With a Cisco Unified Communications Manager (CUCM), if the session timer on the FLX UC 1000 is configured for less than the minimum required by the call manager, call transfer will not operate as expected and will drop the call.
8. With certain call managers, third party conference phone support in the call manager doesn't provide call ID when forwarding or transferring calls. This has been seen with CUCM, Asterix, and OnSip.

When a call is forwarded or transferred with the FLX UC 1000, the ID displayed will be in accordance with the information in the “Call Forwarding Behavior” section of this document.

9. Comfort noise from the far end of a call is played over the speaker when in a call. Due to the speaker loudness of the FLX UC 1000, comfort noise that is otherwise not heard on similar systems, are played by the UC 1000.
10. When using a third party conferencing application, with Caller A and caller B in the call, if Caller A places the call on hold, caller B will not get any indication that the call is on hold. If Caller B then places the call on hold, the hold status on the dialer will show on hold. Once caller A resumes, the call will resume but the dialer on Caller B’s side will still show on hold.
11. If the USB connection to the FLX UC 1000 and FLX UC 1500 is unplugged while audio is being played from an internet browser on the computer running Windows 7 or Windows 8, and then the USB connection is plugged back in, the browser may freeze or fail to pipe the audio back over the FLX UC 1000 or 1500 when it is reconnected.
12. If hold is issued on the USB line, the device will be muted. Occasionally, removing the device from hold will not unmute the device. If the device mute button is pressed to unmute the device, the problem is resolved.

Additional items will be added as identified.

## Optimal Audio Performance for Windows

For the best audio experience follow this **one-time** setup procedure:

1. Right click on the speaker icon in the lower right hand corner of the Windows taskbar.
2. Select Sounds from the menu.
3. Click the Playback tab.
4. Right click on the Revolabs Digital Audio Device.
5. Select “Set as Default Device” from the menu.
6. Right click on the Revolabs Digital Audio Device again.
7. Select “Set as Default Communication Device” from the menu.
8. Right click on the Revolabs Digital Audio Device one more time.
9. Select Properties from the menu.
10. If there is an “Enhancements” tab, click on it.
11. Check the “Disable all enhancements” box.
12. Click on the Advanced tab.
13. Select “24 bit 48000 Hz (Studio Quality)” from the drop-down menu under Default Format.
14. Click “Test.” You should hear the test jingle.
15. Click “Apply”, then “OK”.
16. Click the Recording tab.
17. Right click on the Revolabs Digital Audio Device.
18. Select “Set as Default Device” from the menu.
19. Right click on the Revolabs Digital Audio Device again.
20. Select “Set as Default Communication Device” from the menu. You should see the green VU-meter moving next to Revolabs Digital Audio Device.
21. Right click on the Revolabs Digital Audio Device one more time.
22. Select Properties from the menu.
23. Click on the Levels tab.
24. Reduce the Microphone level to 50.
25. Click “OK”.
26. 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
- Vidy
- Zoom

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 the [Device Manager](#) section of the manual to set up the FLX UC Device Manager.

## Call Forwarding Behavior

	Transfer		Forward	
	A calls B xfer to C		A calls B fwd to C	
Server	ID shown on A	ID shown on C	ID shown on A	ID shown on C
CUCM	B	B	B	B
Asterisk	B	B	B	A
Avaya	C	A	B	A
3CX	B	A	B	A
OnSip	C	A	B	A
Broadsoft	B	B	B	A

## Tested Call Managers

The FLX UC 1000 will work with all 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.

<b>VoIP Provider</b>	<b>Platform name</b>
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	Defined by 3CX Server
Password	Defined by 3CX Server
User ID	Defined by 3CX Server

### 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.iopl.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	*
Username	Defined by CUCM Server
Password	Defined by CUCM Server
User ID	Defined by CUCM Server

## 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)

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10-FLXUC1000-EN  
MARCH 2016 (Rev 2.6.0)