



# **DIVUS VIDEOPHONE**

## **DIVUS VIDEOPHONE FOR ANDROID DEVICES**

**USER MANUAL**



**VERSION 1.0.1 REV 49**

## GENERAL INFORMATION

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The manual has been conceived and written for users who are experienced in the use of PCs and automation technology.

## CONVENTIONS

[KEY]	Keys that are to be pressed by the user are given in square brackets, e.g. [CTRL] or [DEL]
Courier	On-screen messages are given in the Courier font, e.g. C:\>
Courier bold	input to be made by the user are given in Courier bold, e.g. <b>C:\&gt;DIR</b> ).
„...“ (double quotes)	Names of buttons to be pressed, menus or other onscreen elements and product names are given within double quotes. (e.g. "Configuration").
Symbolic	In this manual the following symbolic are used to indicate particular text blocs.
	Caution! A dangerous situation may arise that may cause damage to material.
	Note. Hint and additional notes

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# 1 GENERAL OVERVIEW

## 1.1 INTRODUCTION

The app **DIVUS VIDEOPHONE** completes the DIVUS intercom portfolio and makes video communication possible also on supported devices with Android operating system. The app follows the Windows version of the Videophone-Software (now available in version 3.0) as well in functional as in design terms and permits as well to communicate with a connected IP intercom (like e.g. **DIVUS OPENDOOR**) as also to show the video signal of the external unit.



**Note:** This manual was created for the usage of the app on Android based mobile devices. If you are using the app on **DIVUS TOUCHZONE**, please refer to the USER MANUAL of **DIVUS TZ**, since beneath the explanations of the apps it contains also important additional information.

## 1.2 REQUIREMENTS

**DIVUS VIDEOPHONE** requires a smartphone or tablet with operating system Android 2.3 or higher with active SIP support. If the app on your device should show an error message referring to a missing SIP support, please contact the manufacturer of your Android device. Often the SIP support is locked from the manufacturer as factory default and has to be manually unlocked.

For a correct usage of the app, beneath a compatible IP intercom unit also a VoIP server with SIP support is required, on which the app can be registered. Please note that only the use of VoIP servers sold or recommended by DIVUS can guarantee the full functionality of the app.



**Note:** because of the high amount of Android devices, the app could not be tested on all of them! If you should experience any problems installing / configuring / using this app on your Android product, please contact our support!

## 2 SETUP

### 2.1 INTRODUCTION

**DIVUS VIDEOPHONE** can be downloaded for free from the Google Play Store or the DIVUS homepage and afterwards permits to be connected to a VoIP server.

### 2.2 INSTALLATION

In order to install **DIVUS VIDEOPHONE** on your Android device, please access the Play Store, search for "**DIVUS VIDEOPHONE**" and select the free **DIVUS VIDEOPHONE** app. At completed download the app can be started through the corresponding icon.

### 2.3 CONFIGURATION

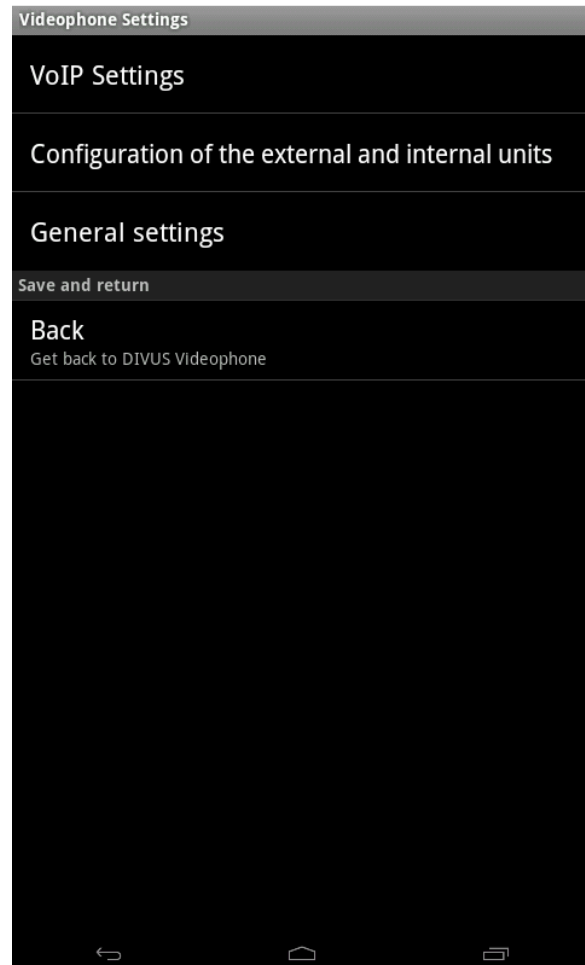
The following pages show how to correctly configure the VIDEOPHONE app. This manual exclusively shows the configuration of the **DIVUS VIDEOPHONE** app and does not go deeper into the intercom topic. Depending on the system in use, you can find more details regarding the whole setup either in the manual of **DIVUS VIDEOPHONE** or in the INTERCOM manual of the **KNXCONTROL** products. In order to use the app it is required that a configured and working VoIP server is present in the system and that a user for your mobile device has been configured correctly.

When starting the app for the first time, it will show a welcome message with some useful information. Before being able to use the app, it namely has to be configured and integrated as VoIP member into the existing system.



**Note:** all screenshots within this manual were made on an Android device, which according to the Android specification is classified as display type „LARGE“ and screen density „MDPI“. Depending on the used device the visualisation of the app may slightly vary. Nevertheless the available options within the app are always the same.

The following screenshots show the welcome message at first start as well as the configuration menu that is opened automatically when confirming the welcome message through the „OK“ button (for further access to the settings menu, just click on the DIVUS logo in the lower area of the VIDEOPHONE main window):



Since the last version, the settings of the app have been grouped into categories, in order to provide a better structure and overview. The following pages show how to correctly configure the Videophone app.

In order to use at least the minimal functionality of the app, the settings regarding the VoIP registration (the first category called „**VoIP Settings**“) have to be configured correctly. In the connection it will already be possible to reach other members of the VoIP server / to receive calls from other members.

Setting	Description
Enter VoIP server IP	In this field the IP address of the targeted VoIP server must be entered.
Enter VoIP username	The username that has to be inserted in this field previously needs to be created on VoIP server side. If a system delivered by DIVUS is used, generally the users from 101 to 120 are already preconfigured and one of them can be used for this field (take care when assigning the usernames; each username can be used by only one device at the same time). If a <b>KNXCONTROL</b> product is used as VoIP server, you will have to create a "VoIP participant" object for the used mobile device in the corresponding configuration menu of the interface. More information regarding this topic can be found in the manual of the <b>KNXCONTROL</b> product.
Enter VoIP password	The VoIP password, when using a system preconfigured and delivered by DIVUS, is always identical to the username. If you are using your own configuration, please insert the password that you have set during the creation of the corresponding user on the VoIP server.

Enter VoIP port	Defines the VoIP port, through which the VoIP server accepts registrations (normally ALWAYS „5060“, please change only in special cases).
Enable re-registration	If this option is enabled, an additional field named „Registration timeout“ will be shown, which allows the input of a time period in minutes. After this timeout the registration on the VoIP server will be force-closed and renewed. TAKE CARE: this option is not required in combination with VoIP servers delivered by DIVUS and is therefore disabled by default. Only when using certain third party systems (please check out also the note below) this setting can be required in order to get correct functionality, like e.g. in combination with AVM FRITZ!Box.



**Note:** the app **DIVUS VIDEOPHONE** was designed for the use in combination with DIVUS systems. Since the app is based completely on the SIP standard, it will also be possible to use it with arbitrary VoIP servers. Nevertheless, DIVUS points out that the support for the app will only be granted when the Videophone app is used in combination with a system either from DIVUS or at least defined as compatible by DIVUS.

As already mentioned, those 5 settings are enough to register on the VoIP server and therefore to make calls between your smart device and other VoIP members. If also external units should be handled and the video signals of cameras should be displayed, also the following settings have to be configured correctly. The category **“Configuration of the external and internal units”** offers different possibilities:

The menu entry „Phonebook“ opens a sub menu that permits to configure up to 10 external units and 20 internal units. On top of the sub menu a drop down menu permits to switch between external and internal units; furthermore, a help button that informs about the parameters to be set in this page and a back button (that also works as saving button) are present. The area below those buttons can be scrolled vertically and gives access to each of the external / internal units.

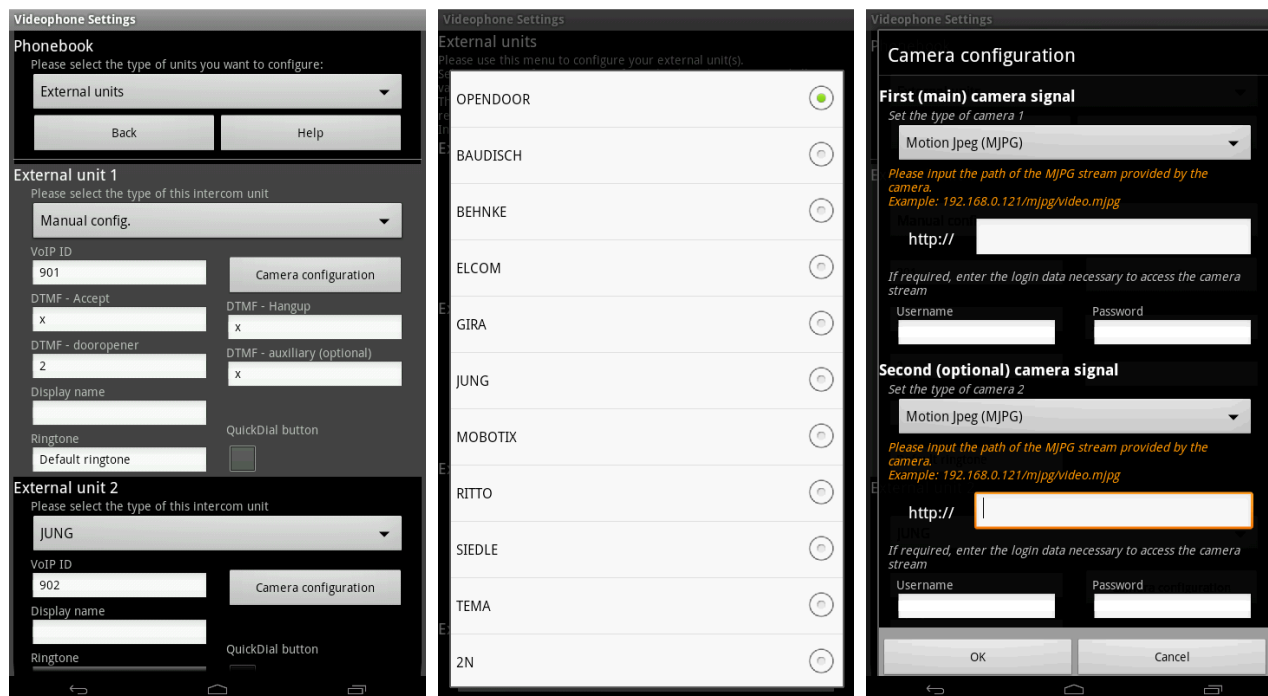
Every external unit shows the following parameters:

- Type: The type of the external unit can be selected through a selection popup
- VoIP ID: This value must match the VoIP-ID (username) of the external unit, as configured within the VoIP server
- Display name: Optionally a display name can be specified, which is shown in the status bar during incoming calls of the corresponding number (overwrites eventual values sent by the VoIP server)
- Ringtone: Optionally a separated ringtone can be selected, which will be played at incoming calls of the selected external unit
- Camera Configuration: This button opens a popup menu which permits to configure up to 2 camera signals (details can be found on the next page)
- QuickDial button: If this checkbox is enabled, the dial window of the app will show a corresponding QuickDial button with the VoIP ID (or the display name, if previously configured), which permits to call the external unit directly

The internal units instead will show the following parameters:

- VoIP ID: This value must match the VoIP-ID (username) of the internal unit, as configured within the VoIP server
- Display name: Optionally a display name can be specified, which is shown in the status bar during incoming calls of the corresponding number (overwrites eventual values sent by the VoIP server)
- QuickDial button: If this checkbox is enabled, the dial window of the app will show a corresponding QuickDial button with the VoIP ID (or the display name, if previously configured), which permits to call the internal unit directly
- Image file: Optionally a picture can be defined, which will be shown at incoming calls of the selected internal unit; it is possible either to select a local picture file or to specify the URL of an image in the world wide web
- Ringtone: Optionally a separated ringtone can be selected, which will be played at incoming calls of the selected internal unit

The screenshots below show the configuration sub menu of the external units with active manual configuration (left), the selection popup of the type of the external unit (center) as well as the popup window of the camera configuration (right):



Even the selection popup of the external units can be scrolled vertically and contains further entries (not shown in the screenshot above). For example the list contains the entry „Manual Config.“, which permits the integration of external units, whose type is not directly defined by an entry in the selection popup. In this case, beneath the fields already described on the previous page, also the following 4 entries will be shown for the external unit (check out screenshot on the upper left):

- DTMF - Accept: DTMF tone for starting the conversation
- DTMF – dooropener: DTMF tone to control the door opener, is connected to the KEY-icon in the app
- DTMF - Hangup: DTMF tone for closing the conversation
- DTMF - auxiliary (optional): DTMF tone to control the auxiliary relay, is connected to the LIGHT-icon in the app

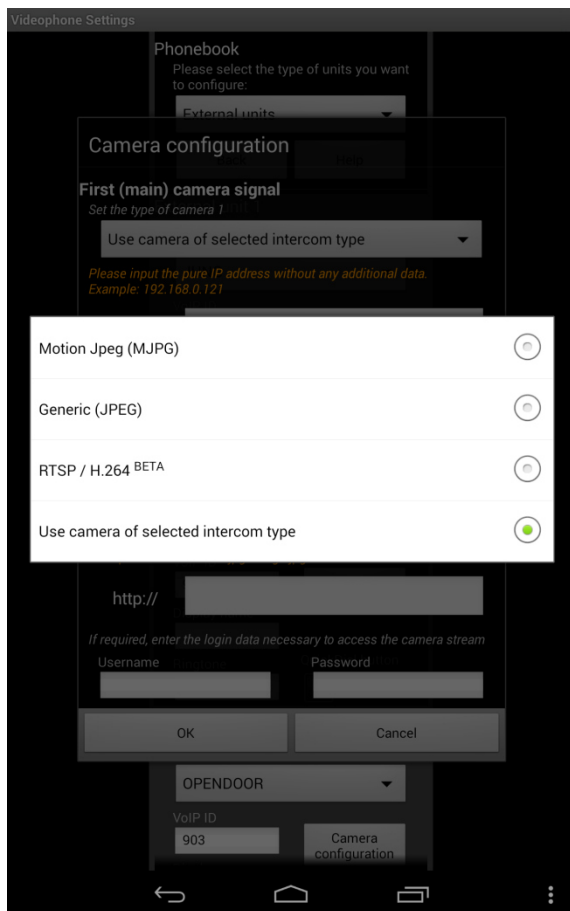
When selecting another type from the selection popup, above fields are automatically filled in correctly (and therefore are not shown at all); only in case of the manual configuration they have to be inserted.

The camera configuration was completely redesigned since the last version of the app and is now shown in a separate popup window (check out screenshot above).

Beneath the known support of camera streams in MJPG format, now it is also possible to configure camera streams using JPEG or RTSP / H.264 (the latter in BETA phase), for both the main camera as also for the optional secondary camera.

Meanwhile the second camera offers only those 3 configuration options (MJPG, JPEG and RTSP / H.264), the main camera continues to offer the possibility to use the camera signal of the selected external unit. Therefore, an additional option called "Use camera of selected intercom type" is available. If selected, only the IP address of the camera of the external unit must be entered (without any prefix or paths), meanwhile for all other options the whole path to the camera signal must be entered. In order to give an idea, for each type an example is shown directly within the configuration popup; in this way, you just need to adapt the shown example path to the one matching your camera. The following screenshot shows the available options for the camera type of the main camera:





**Note:** If the manual configuration was selected as intercom type, the option „Use camera of selected intercom type“ will not be shown, since with manual configuration there is no information about the used camera. In this case the camera must be configured using one of the other 3 options.



**Note:** please give special attention to the allocation of the VoIP IDs of the external units: only if the external unit effectively uses the VoIP ID, for which the configurations have been made, the camera signal and the DTMF tones will be assigned correctly. Please also note that the IDs are already preconfigured (901-910, corresponds to DIVUS standard for VoIP systems); for example, if you want to configure the external unit 910, please use the external unit 10 and don't just rename the external unit 1 from 901 to 910. The same applies for the internal units, which according to the DIVUS standard are pre-configured from 101 to 120.

Once the external units are configured at wish, the changes can be saved by clicking on the text block on top of the page, as already mentioned before.

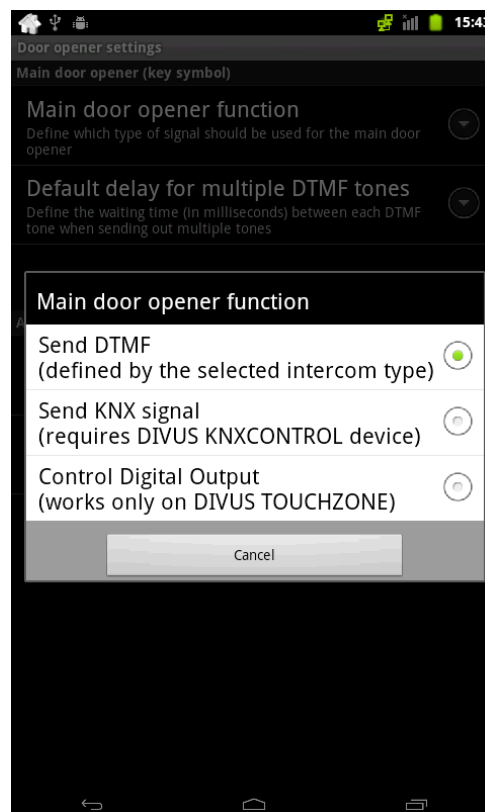
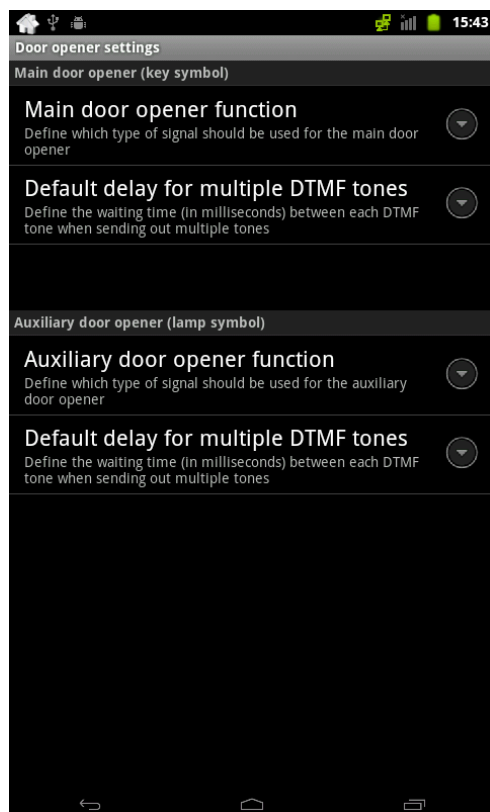


**Caution!**

Please be sure that the entered camera paths are correct. Wrong, incomplete or incompatible values can cause crashes of the app!

The menu entry „Select spy camera“ allows defining one external unit as door spy and therefore enable the camera of the external unit through the CAMERA icon of the app, even when there are no active calls. Take care, this functionality requires that the external unit provides the camera signal permanently and not only when there are active calls. If both camera signals have been configured for the selected external unit, also when using the spy camera function, you will be able to switch between the 2 camera signals using a horizontal swipe gesture.

The last menu entry of this category is called “Door opener settings“ and was also introduced by the latest version of the app. Meanwhile in the past it was only possible to send out DTMF tones as main and auxiliary door opener actions, now it is also possible to send out KNX signals (using a connected **KNXCONTROL** device) or to control the digital in- and outputs present on the **DIVUS** TZ. Below there are 2 screenshots: on the left the mentioned sub-menu is shown, on the right side you can see the available door opener options:



For both door openers (main door opener = KEY symbol, auxiliary door opener = LIGHT symbol) the same options are available, the additional settings depend on the current selection:

Selection „**Send DTMF (defined by the selected intercom type)**“:

This is the standard setting active at delivery and may be known from previous versions of the app. When activated, the door opener will send out the DTMF signal that is defined for the corresponding intercom type in the phone book (either by using a pre-configured template like OPENDOOR etc. or by using the values defined in the manual configuration, as explained on the last pages).



**Note:** DTMF tones are sent out only during active voice communication. Therefore this door opener will work only during an active call. Opening the door when no call is active is not possible with this method; if desired, one of the other 2 options has to be used.

Since the DTMF tones for this selection already are defined through the phonebook, the only available setting is called “Default delay for multiple DTMF tones” and permits to set a waiting time (in milliseconds) when sending more than one DTMF tone; this is required by some external units for a correct function.

Selection „**Send KNX signal (requires DIVUS KNXCONTROL device)**“:

This function permits to control a door opener realized through KNX bus. In order to use this functionality, a working and correctly configured **KNXCONTROL** device must be installed in the system, which will be used to send out the commands. If this is ensured, the following parameters can be configured:

- **KNXCONTROL IP Address:** Please insert the IP address of the **KNXCONTROL** device that should be used in order to send out the command.
- **Object ID:** As already mentioned for the native lock screen template, the ID of of the object that should be controlled must be localized using the search function of the OPTIMA interface and them must be entered here.
- **Duration of door opener signal:** Since the door opener signal is realized as an ON/OFF sequence, you can specify the length (in milliseconds) of the ON signal.

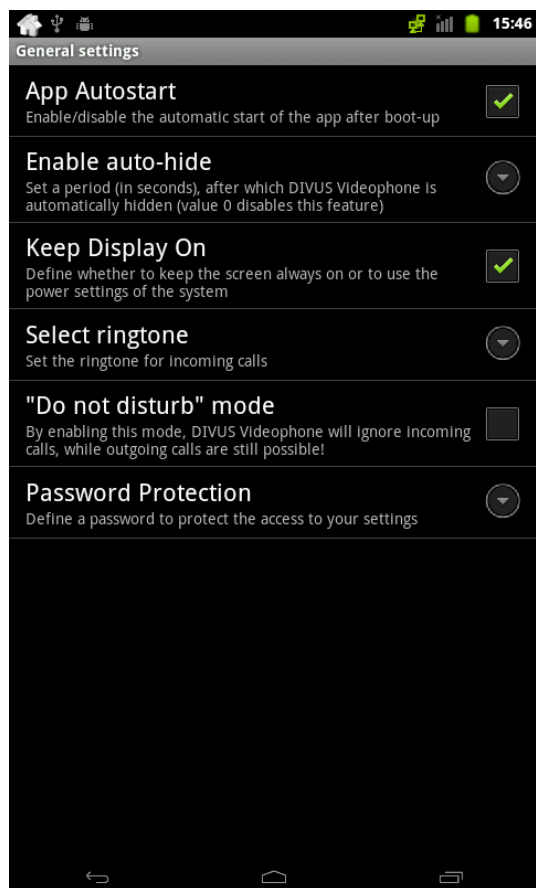
If all parameters have been configured correctly, the corresponding KNX command can be activated at any time through the door opener button shown in the graphical interface. Naturally it is possible to connect the main and the auxiliary door opener button to different object ID and even to different KNXCONTROL devices, if required!

Selection „**Control Digital Output (works only on DIVUS TOUCHZONE)**“:



**Note:** This selection only works on devices of the **DIVUS TOUCHZONE** series, which provide the required digital outputs. If this option is selected on a non-supported device, the configuration menu of the digital in- and outputs will not be available and this functionality can't be used. If instead you are using this function on a **DIVUS TZ**, please refer to the corresponding manual, which explains this functionality for good.

After the configuration of the desired values the different sub-menus can be closed and – if required – the settings of the last category can be adapted. This category, named “**General Settings**”, offers different settings related to the behavior of the app:



The menu entry “App Autostart” permits to define whether the app should be started automatically at completed boot of the device or not. If the app should be able to react on incoming calls, this option must be enabled.

The menu entry „Enable auto-hide” permits to set a timeout after which the app is closed automatically. This prevents that the app remains permanently in front and hides other applications (for example when an incoming call is not answered). If the timeout is set to „0” or left empty, this function is disabled.

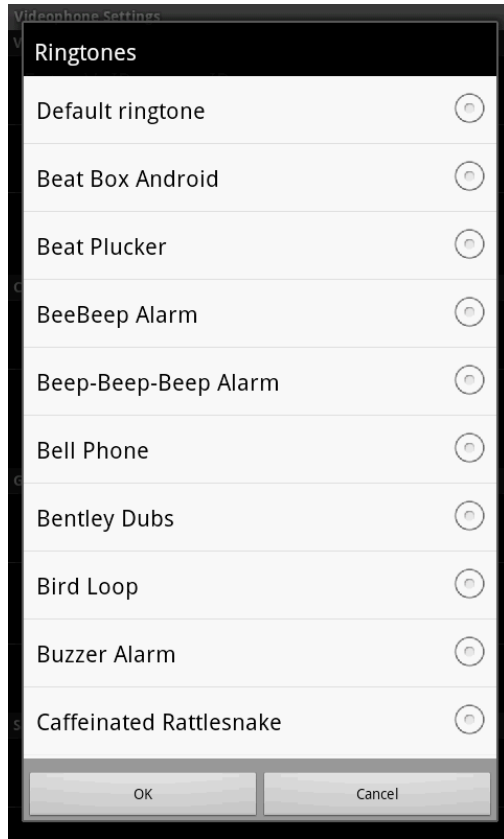
The option “Keep Display On” defines whether the app should keep the display of the device always on or instead the energy settings of the device (as defined within the power / display settings) should be used.

The option “Select ringtone” permits to select the default ringtone among the different ringtones present in the Android system. This ringtone is used whenever no custom ringtone has been assigned to the external / internal unit. Android supports also adding custom ringtones; in order to accomplish this task, please refer to the documentation of Android or use one of the tutorials present in the World Wide Web.

The “Do not disturb” mode can be seen as an extended mute mode: while the app – if only muted – still is opened automatically in front of incoming calls and for example wakes the device from sleep / standby mode, the “Do not disturb” mode blocks this. Incoming calls are completely ignored and will not be registered; outgoing calls can still be done normally.

This option can either be enabled through the option menu or also by long-clicking the **SPEAKER** button directly in the graphical interface of the app.

The following screenshots show 2 of the options explained above: on the left side the selection popup of the ringtones, on the right side the GUI of the app with active "Do not disturb" mode:



The point „Password protection” permits to define a password which protects the access to the settings menu. If this field is left empty, the access to the settings is unprotected.



**Note:** please always leave the settings using the BACK key, otherwise the app won't take over the new settings and eventually will not work. The app in this case will also show a warning message with the necessary actions to be taken.

### 3 USAGE

The following screenshot shows the app in use. On the right side of the screenshot you can find some explanations regarding the elements of the interface:



Video area, in this window the video signal of the external unit / the door spy will be shown.

If 2 video signals have been configured, it is possible to switch between them using a horizontal swipe gesture.

Status bar, informs about the registration state on the VoIP server and about incoming calls

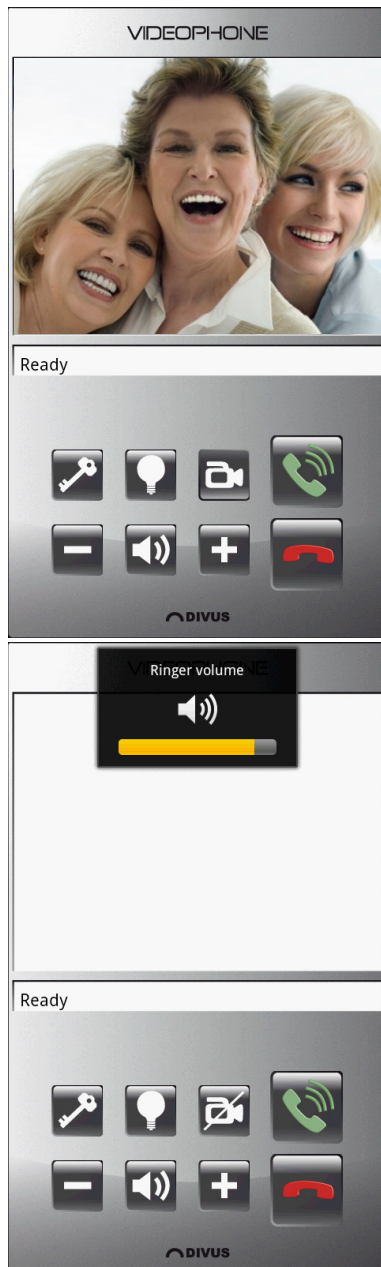
Action area with different buttons, please check out the table below for functionality description

DIVUS logo, gives access to the settings menu

Button	Description
KEY	Button to send the configured main door opener action (DTMF tone, KNX signal or digital output)
LIGHT	Button to send the configured auxiliary door opener action (DTMF tone, KNX signal or digital output)
CAMERA	Toggle button to show / hide the camera signal / door spy camera
VOLUME +/-	Buttons to control the volume
SPEAKER	Toggle button (between + and -) to mute / unmute microphone/ speaker and to enable / disable the "Do not disturb" mode (using a long click)
PHONE GREEN	Button to accept calls / start new calls
PHONE RED	Button to decline / terminate calls

The following screenshots show some samples of the app in different states:

- Screenshot upper left: app with active video signal
- Screenshot upper right: minimum interface when launching door calls through digital input
- Screenshot lower left: volume changes through the +/- buttons
- Screenshot lower right: dial pad to call other VoIP members (with area for QuickDial buttons, empty in the screenshot)

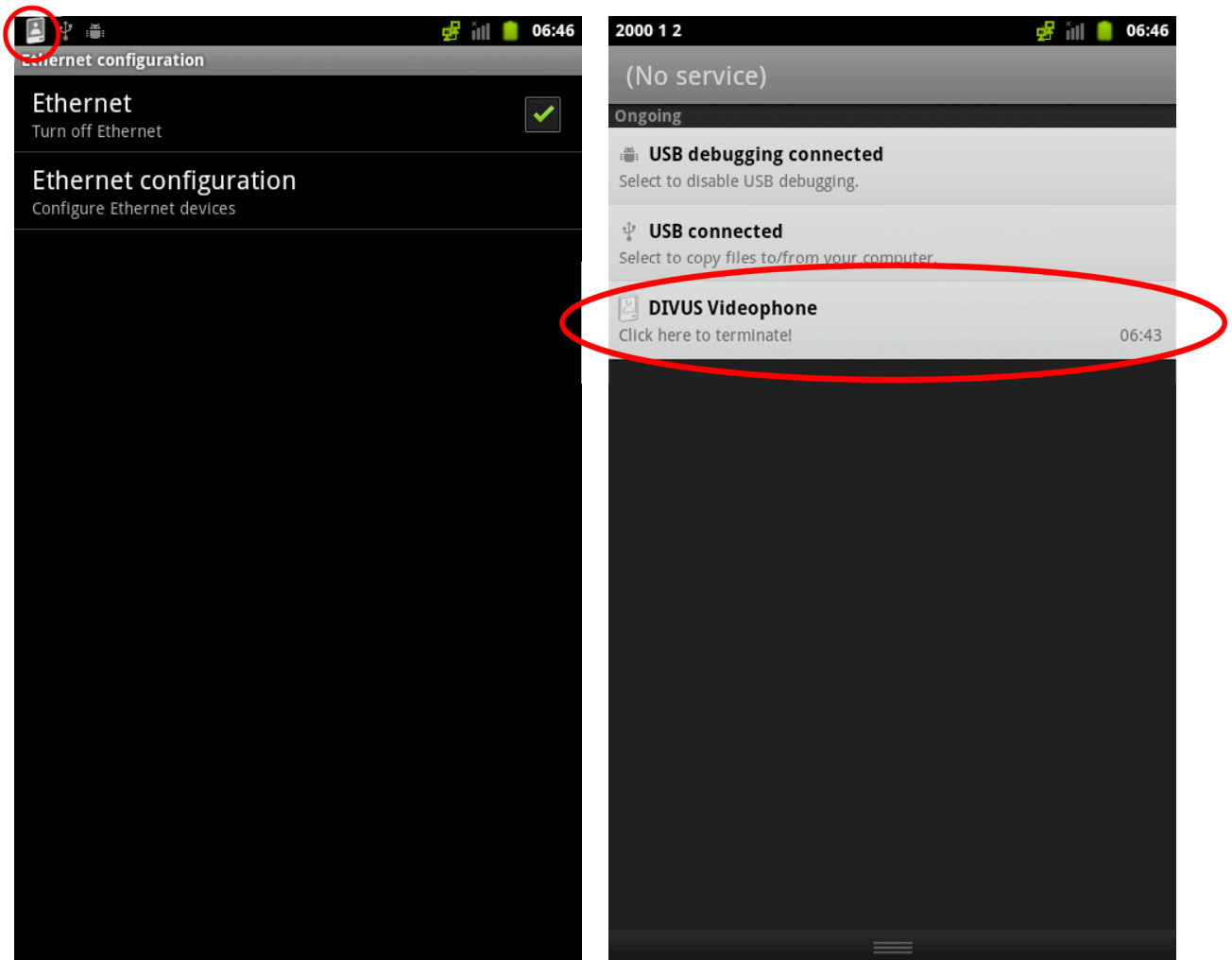


Even when the **DIVUS VIDEOPHONE** app is closed, it must be reachable for incoming calls and open its interface automatically. In order to realize this, the **VIDEOPHONE** app uses a background service that handles the registration on the VoIP server and manages incoming calls.



**Caution!**

By using the app on device without permanent power connection (like for example smartphones or tablets on battery use), the execution of the background service can reduce battery life. Therefore it is possible to terminate the app and its service at any time through the notification bar of Android (please check out the following two screenshots).



Further information about the **DIVUS VIDEOPHONE** app can be requested by contacting the technical support of DIVUS.

# I. CHANGELOG

## VERSION 0.9 rev.11:

- It is now possible to define 2 video signals for each external unit; in the main window it is possible to change between the video signals using a swipe gesture
- The video signal is now automatically shown also on outgoing calls
- The sub menu „External units“ has been transformed into „Phone book“ and now permits to configure also up to 20 internal units (beneath the 10 external units)
- For each external unit a ringtone and a display name can be configured
- The internal units can also be connected to a ringtone and a display name, furthermore it is possible to assign them an image file, shown at incoming calls
- For both external and internal units it is possible to define QuickDial buttons which are shown in the dial window of the app
- The SIP port (default 5060) can now be changed
- It is possible to enable a forced re-registration after a definable time period (is required by some VoIP servers)
- Extension of the layout support for additional resolutions / Android devices
- Smaller graphical adaption (like introduction of images during incoming / outgoing calls)
- Introduction of a version page

## VERSION 0.9 rev.23:

- Use of alphanumeric characters possible for VoIP server and login data
- Status bar now shows the used VoIP ID of the app
- Possibility to configure the delay when sending multiple DTMF tones
- Improvement of the internal memory management of the app
- Display of warning messages when closing the app in a wrong way
- Bug fixing: correction of the mute function (now also the ringtone is muted)
- Bug fixing: introduction of different control routines to prevent insertion of wrong values
- Extension of the localization (Polish)

## VERSION 0.9 rev.29:

- Introduction of a wait tone for outgoing calls
- The automatic start of the app can be disabled through the settings
- Adaption of the volume / mute control to new mobile devices
- Adaption of the hang-up function for a quicker release of the used resources
- Adaption of the app to the new audio solution of **DIVUS TZ**

## VERSION 1.0.1 rev.40:

- Integrated support for additional video formats (MJPG, JPEG and RTSP / H.264)
- Redesigned camera configuration of the external units
- Added support for camera authorization (username and password can be specified for each camera)
- Added protection on wrong video IP paths / addresses, avoiding crashes
- Rearranged complete settings menu



- Changed door opener configuration; both buttons can either be configured as DTMF or KNX signal, with various configuration options
- Removed numeric lock on ID field of external units; now also alphanumeric characters can be used
- Adapted design of phonebook, in order to use only half the screen on wider screens
- Added setting to change wake lock behavior (either keep display always on or use the system power settings)
- Introduced a „Do not disturb“ mode (can be enabled either through the settings or through a Long-Click on the mute button)
- Fixed casual bug in phonebook where all IDs are set to the same value (910)
- Code cleaning, various small bug fixings

### **VERSION 1.0.1 rev.49:**

- Integrated new icons
- Fixed problem with 2N video stream
- Fixed multiple DTMF tones delay setting: now the correct delay is applied
- Fixed phonebook width on devices with high screen density
- Fixed issue, that calls triggered by digital input on TOUCHZONE were not handled correctly
- Added support for calling also VoIP numbers containing empty spaces

