

BlindShell Classic user guide

BlindShell Classic is a button phone for blind and visually impaired people. The phone is operated via the physical keypad or by voice commands. Feedback is provided by the built-in synthetic voice, vibrations and additional acoustic signals.

Important notice: If you let your phone's battery discharge completely, it may appear that the phone is not able to charge at all. In such case leave the phone on the charger for several hours. Afterwards the phone should start charging again. Leaving a discharged battery in the phone for longer period of time might lead to damaging the battery. Such case is not covered by the phone's warranty. We recommend you to remove the battery from the device when you are not using it for more than a week.

Getting started

Package contents

- BlindShell Classic phone
- Battery - is the flat rectangular object. it has a notch on its bottom edge.
- Earphones - on one side of the earphones there is a jack connector, the other side has two earbuds.
- USB charger - Standard EU USB charger, input 110V~240V, 50Hz, output 5V.
- USB cable - a micro USB cable, with standard male USB A on one side.

Phone description

Front side of the phone

Upper part of the front side of the phone is occupied by the LCD screen, this is the Smooth area of the phone. The notch right above the LCD screen is an earpiece. Below the LCD screen is the alphanumeric keypad with the control buttons.

- LCD screen - displays information.
- Keypad - controls the phone, also used for inputting text.
- Earpiece - used as a speaker during a phonecall.

Rear side of the phone

All the features on the rear side of the phone are located in the upper part. Going from the left to right there is a camera and a LED flashlight. Next to it, in the middle is the SOS emergency button. On the right-most side is the phone's speaker.

- Camera - used in the color recognition and object tagging applications
- LED flashlight - assists the camera in low light settings.
- SOS emergency button - used in emergency situations to call a previously assigned emergency contact.
- Speaker - used for voice and audio output.

Edgess of the phone

On the top edge there is a USB port and audio jack connector. On the bottom edge

there is a microphone. In the right bottom corner there is an opening slit.

- Audio jack - earphones connector.
- USB connector - used for charging the phone and connecting the phone to a computer.
- Microphone - used as voice input during a phonecall, voice control, voice dictation, and taking voice memos.
- Opening slit - used for taking the back cover off the phone.

Full description of the phone's buttons with their functions can be found in the section **operating the phone**.

Taking off the back cover

There is a paper insole, which protrudes from the phone. This piece of paper will help you with taking the back cover off the phone for the first time; you can dispose of it afterwards. If you need to remove the back cover later when it is fully attached to the phone, hook your fingernail into the opening slit located on the bottom right edge of the phone and pull the back cover away from the device until you hear a clicking. Move your finger around the phone through the little gap that has now appeared and remove the back cover completely. The back cover fits the phone quite tightly, so it may take some force to take it off.

Inserting SIM card, SD card, and battery

Position the phone in front of you in a way, that the screen and keypad of the phone is facing downwards and the top of the phone (camera and SOS emergency button) is pointing away from you. The rectangular hollow space which is meant for housing a battery should now be in front of you.

Inserting SIM cards

The phone has two micro SIM card slots which are located in the lowest part of the battery space. One on the right-hand side and one on the left-hand side. The right-hand side SIM slot supports 4G.

The right-hand side SIM slot

In between of the two SIM card slots there is an indented space. Put the SIM card in this space such, that the SIM card contacts are facing downwards, and its bevelled edge is its upper right corner. Push on the SIM card lightly with a tip of your finger and carefully slide it all the way to the right.

The left-hand side SIM slot

In between of the two SIM card slots there is an indented space. Put the SIM card in this space such, that the SIM card contacts are facing downwards, and its bevelled edge is its lower left corner. Push on the SIM card lightly with a tip of your finger and carefully slide it all the way to the left.

Removing a SIM card

To remove a SIM card from a SIM card slot place a tip of your finger on the edge of the SIM card, push down on it and slide your finger with the SIM card towards the space in between of the SIM card slots.

Inserting an SD card

SD card slot is located above the right-hand side SIM card slot. To insert an SD card, you need to open the cover of the slot first. Push the metal cover of the SD card slot to the right, until you hear a click. Carefully lift the cover upwards, no force is needed to do so, if you feel resistance while lifting the slot, then the slot is not opened properly. Insert the SD card to the opened slot, contacts facing downwards and to the right. Close the metal cover and push it downwards. While pushing on the cover, slide it to the left to lock it in place. You should hear a click once the cover is locked.

Inserting a battery

Locate a notch on the edge of the battery. This notch should point towards you and be on the side of the battery which is facing upwards. Slide the battery from top to the bottom into its housing, it should fit snugly. To remove the battery use your fingernail to hook it from the top and pull upwards.

Switching on the phone

To switch on the phone, press the **back button** for at least three seconds. The phone will play a start-up melody. After the first item in the main menu - **call** - is announced, the phone will be ready for operation. Registration to the mobile network may take up to a minute after the phone is switched on.

Interactive tutorial

An interactive tutorial automatically starts, when the device is powered on for the first time. This tutorial has to be completed before you can use the phone. The tutorial is later available in the menu item called **Manual**. The interactive tutorial will teach you how to operate the phone. Pressing any button during the tutorial will tell you what the button is used for. Some of the buttons have two functions, depending on whether you performed a short press of the button or a long press. Once you are done with the training, you can end the tutorial by pressing the **back button** and a **confirm button** afterwards.

Operating the phone

This section of the user guide describes how the device can be controlled, either by making use of the phone's buttons or using your voice.

Volume buttons

The two topmost buttons on the sides of the keypad are the **volume buttons**.

- Short press of either of the volume buttons changes the current volume. The **volume button on the left side** decreases the current volume and the **volume button on the right side** increases the current volume.
- Long press of either of the **volume buttons** anywhere, except when inputting text, will start voice control.
- Long press of either of the **volume buttons**, while inputting text, will start voice dictation.

Function buttons

Two **function buttons** are located below the volume buttons.

Left function button - confirm button

- The left function button, called a **confirm button**, is used for confirming actions, selecting menu items, and accepting calls. You can think of this button as OK/Send/Confirm.
- During a call this button switches between the ear-piece (small speaker used during a phone call) and the loudspeaker.
- Long press of this button within the main menu will bring up a screen for dialing numbers.

Right function button - back button

- The right function button, called a **back button**, is used for going back in a menu, canceling events, and rejecting calls. You can think of this button as NO/Back/Cancel/Erase/Reject.
- Long press of this button anywhere will always bring you to the Main menu of the phone.
- Long press of this button while the phone is switched off will switch the phone on.
- While inputting a text, short press of the **back button** will delete a character, long press of the button will delete everything.
- Holding the **back button** for 10 seconds will initiate an emergency reboot of the phone. (Same effect can be achieved by removing the battery from the phone)

Directional pad

Upper part of the keypad in the middle is occupied by a directional pad. This pad has a button in each cardinal direction (up, right, down, and left) and an extra button in the middle.

Left and right buttons

Left and right buttons are used for navigation in a menu. The **right button** will get you to the next item in a menu, and the **left button** will get you to the previous item in a menu. Those buttons are also used for moving in a text by characters, when writing a message or any other text.

Up button

Press of the **up button** will produce information about state of the phone, such as time and date, battery level, or information about networks.

Down button

Press of the **down button** will repeat the last utterance. Long press of this button will spell the last utterance by letters.

Middle button

The **middle button** serves as a confirmation, this button can be interchanged with the **confirm button**. When the phone is locked, pressing the **middle button** will

tell you the current time.

Numeric keypad

Layout of the numeric keypad is identical to layouts which were used in older button phones. There are four rows of three buttons each. First row contains buttons one, two, and three. Second row contains buttons four, five, and six. Third row contains buttons seven, eight, and nine. Last, fourth row, contains buttons **asterisk** (star), **zero**, and **hash** (number sign).

0 - 9 buttons

In a menu, pressing a **number button** (except zero) will move you to the corresponding item in the menu. For example: While being in the main menu, pressing the number 3 will move you to the third menu item called **Contacts**. To select the item press the **confirm button** afterwards. In the main menu, long pressing a **number button** will produce a corresponding quick dial contact. Pressing the **confirm button** afterwards will initiate a call to that contact. If no contact is assigned to the pressed number, you will be able to do so now. You can have up to 10 contacts stored for the quick dial.

Asterisk button

Long pressing the **asterisk button** (bottom left button) anywhere in the menu will lock the phone. To unlock the the phone long press the asterisk again. This feature can be switched off in the **Settings**.

Hash button

Long pressing the **hash button** (bottom right button) anywhere in the menu will bring up a menu with sound profile options (silent, vibration, loud)

Using the numeric keypad to input text

In an input mode the numeric keypad buttons are used to input text, numbers, and special characters. Each button, except the hash button, which changes capitalization of the letters, contains a group of characters. You can cycle through the group of characters by pressing the respective button multiple times. For example: **button two** contains characters A,B,C, and number 2. To enter the letter B – press the button twice. To enter the number 2 – press the button four times.

- **Button one** contains punctuation special characters.
- The **asterisk button** contains the rest of the special characters.
- **Button zero** contains number 0 and a space.
- The **hash button** changes the capitalization of the letters, and switches between numeric and alphanumeric keyboard.
- Long press of the **hash button** will bring up a menu with emojis. To input an emoji, select it with the **confirm button**.

Voice dictation

Important notice: In order to make use of the voice dictation function, you have to be connected to the Internet via WiFi or a mobile network.

As an alternative to inputting text by typing it on the keypad, voice dictation function can be used. While in an input mode (typing a message, a note, and so on)

long press one of the **volume buttons**. Voice dictation will be activated and after a beep you will be able to dictate text.

Dictate the text in short sentences or in a few words. After each dictated segment the phone will slightly vibrate. At this moment you can either continue with the text dictation or finish the voice dictation by long pressing either of the volume buttons, or by pressing the **confirm button**. If you don't finish the voice dictation function manually, it will be finished automatically after a few seconds when no text is being dictated.

Voice control

Important note: In order to make use of the voice control function, you have to be connected to the Internet via WiFi or a mobile network.

The phone can be alternatively controlled by voice commands instead of using the phone's keypad. While in a menu long press one of the **volume buttons**. Voice control will be activated and after a beep you will be able to dictate the commands. The voice control has following functionality:

- You can open any application by simply saying its name. For example to open the application **messages**, start the voice control and say "messages".
- You can dial a contact from you contact list by voice. To do so, start the voice control and say "call NAME", for example: "call Michael" or "call mom".
- You can create a new message with a recipient from your contact list by voice. To do so, start the voice control and say "send message to NAME", for example: "send message to Michael" or "send message to mom". Afterwards you can either type the text or use the **voice dictation** to input the text.
- You can get quick information about the state of the phone, time and date, or current battery level. To so start the voice control and say "information about state", "time", "date", or "battery level".

SOS emergency button

SOS emergency button is located on the reverse side of the phone. Pressing the button for at least 3 seconds will initiate an emergency call to a previously assigned contact. This outgoing call has to be confirmed by the **confirm button**. Emergency call can be initiated even when the phone is locked.

If no contact is assigned to the **SOS emergency button**, then long pressing the button will bring up a menu for assigning a contact to it.

BlindShell Functions

This section of the user guide describes each item in the menu and its function.

Call

The **call** menu item allows you to make calls to contacts from your contact list or to phone numbers. In the **call** menu you can also check your call history - incoming, outgoing, rejected and missed calls.

Dial contact

Selecting the **dial contact** menu item will produce a list of contacts. Move in the list of contacts until you find the contact you want to call. Alternatively you can use the **find** function to locate the contact faster (this is especially useful for contact lists containing a lot of entries). The **find** menu item is the last item in the list and you can get to it quickly by pressing the **left button** when being on the first contact in the list. Another alternative to speed up going through the contact list is typing a letter on the keypad. This will move you to the first contact, whose surname is starting with that letter. Afterwards you can move in the list by the **left and right buttons**. After finding the contact you want to dial press the **confirm button** to initiate a call.

Dial number

Selecting the **dial number** menu item will produce a dialing screen. You can now type the phone number you want to call. After typing the number press the **confirm button** to initiate the call.

Call history

Menu item **call history** contains all incoming and outgoing calls and their details. Selecting an entry by pressing the **confirm button** will bring up a menu with following options:

- call the contact/number
- send a message
- check the length of the call
- delete the call from the call history.
- Selecting the **delete all history** option will erase every single call in the call history list.

Blocked numbers

Menu **blocked numbers** contains a list of contacts and phone numbers which are prevented from making phone calls to your device. New blocked numbers or contacts are added via the **add blocked number**. To unblock a contact or number from the list, select it and confirm the action with the **confirm button**.

Blocking or unblocking numbers can be also performed from the menu **call history**.

Messages

The **messages** menu item allows you to write messages to contacts from your contact list or directly to a phone number. You can write messages to multiple recipients at once and you can also check your past conversations - your incoming and outgoing messages.

Note: To find out how many characters are remaining till you fill the character limit for one SMS, press the **down button** which will read the whole message back to you and announce the remaining characters count.

Write SMS to contact

Selecting the **write SMS to contact** will bring up a list of your contacts. You can move in the list the same way you move in your **contact list**. After finding the

contact you want to send message to, select it by the **confirm button**. Write the text of the message and send it by pressing the **confirm button**.

Write SMS to number

Selecting the **write SMS to number** will open a menu with three items. The first one being **number**, the second one **text**, and the last one **send message**.

- **Number** - enter a number, to which you want to send the message to and confirm it with the **confirm button**.
- **Text** - enter the text of the message and confirm it with the **confirm button**.
- **Send** - after entering the number and text select this menu item to send the message.

The written number and text are not final, you can edit them before sending the message by selecting the corresponding menu item.

Write SMS to multiple recipients

Selecting the **write SMS to multiple recipients** will open a menu with three items. The first one being **recipients**, the second one **text**, and the last one **send message**.

- **Recipients** - select either contact from your contact list or a number to which you want to send the message. The entry will be added to the list. You can continue adding additional contacts and phone numbers until you have entered all recipients. Afterwards go back to the previous menu with the **back button**. To delete an entry, select it and choose **delete item**.
- **Text** - enter the text of the message and confirm it with the **confirm button**.
- **Send** - after entering the number and text select this menu item to send the message.

The selected recipients and text are not final, you can edit them before sending the message by selecting the corresponding menu item.

Conversations

The **conversations** menu item contains all incoming and outgoing messages, which are grouped under a corresponding contact or phone number. Selecting a specific contact or a phone number will bring up a list of all messages belonging to that contact or phone number. If you then select a single message, following options will be presented:

- **Reply** - instantaneously write a message and send it to the contact by pressing the **confirm button**.
- **Forward** - forward the message to another contact or a phone number.
- **Call** - dial the contact or the phone number.
- **Save as a new contact** - in case the phone number is not saved in your contact list already, you can save it to it by selecting this option.
- **Add to a contact** - in case the phone number is not saved in your contact list already, you can add it to an existing contact.
- **Delete** - deletes the message.
- **Delete conversation** - delete all incoming and outgoing messages corresponding to the contact or the phone number.

Contacts

The **contacts** menu item allows you to access, edit, and add contacts. You can back-up contacts to, and import contacts from a .VCF file. You can also assign a quick dial contacts.

Contacts list

Contact list contains all your contacts from the phone's memory and your SIM card. You can move in the list of contacts using the **left and right buttons**, use the **find** menu item, or jump to contacts by using the keypad and typing letters.

- The **find** menu item is the last item in the list and you can get to it quickly by pressing the **left button** when being on the first contact in the list. After selecting the **find** menu item, type whole name or part of the name of the contact that you want to find. All contacts matching the input criterion will be displayed after confirming the input text.
- Using the keypad as a alphanumerical keyboard will move you in the contact list to a first contact, whose surname is starting with the input letter. For example: pressing the **button two** three times (letter C) will move you in the contact list to the first contact with surname starting with the letter C. You can move in the list of contacts afterwards with the **left and right buttons**.

When you select a contact following options will be presented:

- **Dial** - dials the contact.
- **Send message** - opens a text input field which content, after being confirmed, will be sent to the contact.
- **Edit contact** - edit name, surname, phone numbers, or e-mail of the contact.
- **Assign ringtone** - opens a list of possible assignable melodies. Selecting one will assign it to the contact. This melody will be played during an incoming call from that contact.
- **Send contact as a business card** - opens a menu to select either a contact or a phone number, to which you want to send the original contact. After selecting either of those the original contact will be sent as a business card.
- **Delete contact** - deletes the contact. This action requires a confirmation.

SIM card contacts

Contacts stored on your SIM cards are displayed in the contact list. If you delete such contact, it will be also deleted from your SIM card. When you edit a SIM card contact it will be saved as a new contact to the phone and the original one will be removed from the SIM cards.

Add new contact

New contact can be added to the contact list through the **add new contact** menu item. You can store following information about the contact - name, surname, mobile number, home number, work number, and e-mail. When all the desired fields are filled, you can save the contact by selecting the **save contact** menu item.

Single button dialing

Single button dialing, or quick dialing, is used for easy and quick dialing of up to 10 selected contacts. You can dial them from the main menu by long pressing a number, to which a contact or number is assigned, and confirming the choice by the

confirm button.

List of the currently in use numbers and contacts assigned to them can be found in the **single button dialing** menu item. Each item in the menu will announce the currently assigned contact or phone number, or whether there is anything assigned at all.

- **Unassigned** - the number does not have a quick dial assigned. By selecting this item you can assign a phone number or a contact to it.
- **Assigned** - there is a contact or phone number assigned to the quick dial number. You can either remove it, or change it to another contact or phone number.

Backing up and importing contacts

BlindShell allows you to backup contacts into and import contacts from a .VCF file.

Importing contacts

- The filename of the file, from which the contacts will be imported has to be Contacts.vcf. Copy this file either to the root folder of the memory card, if you use one, or to the root folder of the internal storage of the phone.
- If Contacts.vcf is present in both storages, the file which is located on the memory card will be used.
- Select the option **import contacts** to copy the contacts from the Contacts.vcf file into the phone's contact list.
- Contacts in the Contacts.vcf file, which are identical with contacts already stored in your contact list, will be skipped during the import.
- After the contact import is finished the Contacts.vcf file will be renamed to Contacts-imported.vcf.
- The phone will announce an error if the Contacts.vcf file is not found either on the memory card or in the internal phone storage.

Backing up contacts

- Select the **backup contacts** menu item to create a Contacts.vcf file; this will copy contacts that are in the phone's contact list to the Contacts.vcf file.
- If a memory card is in the phone, the file will be created in the root folder of the memory card.
- If no memory card is present in the phone, the file will be created in the root folder of the internal storage of the phone.

More applications

The **more applications** menu item contains various applications, which expand the functionality of the phone. These applications are grouped under following menu items.

- **Tools** - contains tools like alarm, calendar, calculator, weather forecast for your area, or others.
- **Email** - a basic email client.
- **Media** - contains music player, FM and Internet radios, and book reader.
- **Vision aids** - contains tools that are designed to aid with a vision handicap.

Tools

The **tools** menu item follows these applications:

- **Alarm**
- **Minute timer**
- **Calendar**
- **Notes**
- **Voice recorder**
- **Calculator**
- **Weather**

Alarm

The **alarm** feature, allows you to utilize multiple alarms at once. For each of those alarms you can set time, and days of a week on which the alarm should go off. To dismiss an active alarm press either the **confirm button** or the **back button**.

Creating an alarm

To create a new alarm select the menu item **new alarm**.

- **Set time** - accepts 4 digits as a time. The first pair of digits represents hours and the second pair of digits represents minutes.
- **Set repeating** - governs the days of the week on which the alarm will go off. If you do not select any day the alarm will go off daily. Otherwise the alarm will ring only on the selected days.
- **Save alarm** - saves the alarm and activates it.

Editing the alarm

After selecting a previously created alarm you can activate/deactivate the alarm and change the alarm settings. Inactive alarm will be still stored in the phone, but it will not go off on its set time. Selection of the **change alarm** menu item will provide following options:

- **Set time** - changes the time of the alarm.
- **Set repeating** - sets the days on which the alarm should go off.
- **Save alarm** - saves the changes to the alarm (to discard the changes press the **back button**).

Minute timer

The minute timer is a basic countdown which plays a notification melody after a specified amount of time. It runs on a background, so you do not need to have the screen with the countdown timer active. To dismiss the alarm press either the **confirm button** or the **back button**.

Setting the countdown time and activating the countdown

You can only set the countdown time when the timer is not active (neither running or paused).

- Selecting the timer will show **activate** and **set time**.
- **Activate** will start the countdown with currently set time.
- Selecting **set time** will produce menu to set minutes and seconds of the countdown.
- After minutes and seconds are input, the **save** menu item will store the information to the timer.

Activating, pausing, and canceling the countdown

- To activate the timer select the timer and **activate** menu item afterwards. Timer will start counting down.
- While the timer is counting down, you can either **pause** it (the timer will freeze on its current time) or **cancel** it (the timer will reset to its initial time).
- While the timer is paused, you can either **resume** it (the timer will continue counting down from its current time) or **cancel** it (the timer will reset to its initial time).

Calendar

The **Calendar** application allows you to create and track your agenda. You can create events lasting whole day, events lasting from specific time to specific time, or event stretched over several days. You can be notified about an upcoming event in advance and each event can be repeated with a specified interval.

Adding an event

Selecting the **add event** menu item will open a menu where details of the event can be specified. The only mandatory fields are **title** and **start date**. Following fields can be filled during the event creation:

- **Title** - title of the event.
- **Location** - location of the event. You can use this field to add more information as well.
- **Start date** - First day of the event. You can either enter the date manually via **enter a date** option or use the **pick a date** option, which will show you 7 days of the upcoming week.
- **Start time** - If the event is meant to last whole day, leave this empty. Otherwise enter the starting time of the event.
- **End date** - in case of one day event the end date should be same as the start date. Otherwise enter the last day of the event.
- **End time** - enter the end time of the event. If you enter earlier time than the start time, the start time will be set to one hour before the end time.
- **Repetitions** - If you want the event to be a periodical one, select the period of the repetition here.
- **Reminder** - If you want to be notified before the event starts, select the amount of time in this option.
- **Save event** - Saves the event.

Browsing the agenda

All the future events are listed under the menu item **agenda**. Name of the event and its timeframe are displayed. If you want to either edit or delete the event, press the **confirm button** to access those options.

Browsing the calendar

To browse calendar by weeks or by days select the **browse calendar** option. Choose a year, month, and a week of the month for which you want to display your events. You can then display all the events for the chosen week by selecting **All week**, or further filter the selection to display **by days**.

Notes

The **notes** application allows you to take written notes.

- To create a new note select the **add note** menu item, write the content of the note, and save it by pressing the **confirm button**.

- To access the created notes select the **notes list** menu item.

If you select a note in the list of the created notes, you will be able to perform following actions:

- **Edit** - opens the note for editing.
- **Send via SMS** - opens a dialog to select a contact or enter a phone number, to which the note will be sent.
- **Delete** - deletes the note.
- **Delete all** - deletes every single note in the list.

Voice recorder

The **voice recorder** application allows you to take voice memos, record conversations or sound.

- To create a new recording select the **start recording** menu item and a recording will start immediately. To finish the recording press either the **confirm button** or the **back button**.
- To access the recordings select the **records list** menu item.

If you select a recording in the records list, you will be able to perform following actions:

- **Play** - plays back the recording. For seeking forward or back in the recording use the **left and right buttons**.
- **Rename** - renames the recording to a chosen name.
- **Delete** - deletes the recording.

Calculator

Calculator allows you to perform basic arithmetic operations - addition, subtraction, multiplication and division. You can enter an arbitrary long expression with as many numbers and operators as you want. Once the **confirm button** is pressed the result of the expression is presented. The result of the previous expression can be used in the next expression as the first number, if after pressing the **confirm button** you continue with a mathematical operator. The mathematical operators are stored under the **asterisk button** and the decimal point is stored under the **hash button**.

Weather

The **weather** application shows the current temperature in your area and a forecast for upcoming three days. You can also access a detailed forecast for each of those days by selecting a day with the **confirm button**. This detailed forecast shows temperature, wind speed, cloudiness, humidity, and atmospheric pressure for every three hours of the day, from two in the morning until eleven in the evening. You can move in the detailed forecast by using the **left and right buttons**.

Email

You need to have an e-mail account created prior to using the BlindShell e-mail client. The BlindShell e-mail account is capable of managing one e-mail account at a time.

Logging in to an e-mail account.

During the first start of the **email** application you need to log into your e-mail account. To do so, select the **new account** menu item. Enter your email address, SMTP server address, IMAP server address, and your password. You can find information about the SMTP and IMAP server addresses on the website of your e-mail provider. After selecting the **save** menu item, an attempt will be made to log into your email. If successful, menu item **new email** will be shown. Logging into your email account might take some time, depending on your Internet connection. You can change your e-mail account information or delete the account from the device via the **edit account** menu item.

Important notice: In some cases you need to explicitly allow third party applications to remotely access your e-mail, or you have to enable the IMAP access for your e-mail account.

Writing a new e-mail

To write a new e-mail select the **new email** menu item. In the **recipients** menu item you can either enter an e-mail address from your contact list (selected contact has to have an e-mail address assigned) or type in the e-mail address manually. You can also add multiple recipients. Fill in the **subject** and **text** of the e-mail, and send it afterwards by selecting the **send** menu item. The menu with the written e-mail will stay opened until the e-mail is successfully sent. Once the e-mail is sent, you will be moved back to the main menu of the e-mail account. If the sending of the e-mail fails, you can try to send the e-mail again, or leave the writing of the e-mail, saving the e-mail to drafts.

If you are not able to, or do not want to send the e-mail right away, you can press the **back button**, which will bring up these two options:

- **Save to drafts** - finish writing the e-mail and save the progress as a draft.
- **Don't save to drafts** - finish writing the e-mail, discard it. You can return to the drafted e-mail later by opening it from the **drafts** folder.

Browsing e-mails

To browse e-mails in your inbox, or other folders, select the respective folder and then move within the folder using the **left and right buttons**. To read the contents of a specific e-mail, select it with the **confirm button**. When reading the contents of an e-mail, pressing the **confirm button** again will bring following menu items:

- **Reply** - reply to the original sender. Opens a new e-mail with prefilled recipient and subject.
- **Reply all** - reply to the original sender and everyone on copy. Opens a new e-mail with prefilled recipient and subject.
- **Forward** - forward the e-mail to someone else. Recipients are empty, subject and text of the e-mail is prefilled.
- **Add sender to contacts** - Create a new contact with the e-mail address of the sender, or update a current contact with the senders e-mail address.
- **Delete** - delete the e-mail.

Media

Applications in the **Media** section allow you to listen to radios, or your own audio files. The **media** menu item contains following applications:

- **Music player**
- **Book reader**
- **Internet radio**
- **FM radio**

Music player

To make use of the **music player** you first need to copy audio files to a Music folder of the phone, either to the internal memory of the phone or onto an SD card. To do so, connect your phone via USB cable to a computer, on which your music files are stored.

Windows machines

The phone should be recognized as an external device. Afterwards you can copy files via any file explorer application from your computer to the device. If the device is not recognized by the computer, please install the latest updates and check if there is MTP driver present.

Apple machines

You need to install **Android File Transfer** software to copy files from your Mac device to the phone. You can download the program here:
<https://www.android.com/filetransfer/>

Linux machines

The phone should be automatically recognized by the computer. Copy the files to the phone with a file explorer application.

Music folders

To play music, first pick an audio file which you want to play. There are four folders from which you can choose: **All songs** - shows every audio file in the phone, ordered by name. **Artists** - shows artists of all the audio files present in the phone. After selecting an artist you can either browse the artist's songs or albums. **Albums** - shows all albums present in the phone. After selecting an album, songs from the album are shown. **Favorites** - shows audio files you have labeled as favorites. Each of the above mentioned folders has a **search** option, which is always the last item in the menu. You can access it quickly by pressing the **left button**, which will bring you to the last item in the menu.

Music playback

Menu item **resume playback** will continue playing an audio file which was played the last time the **music player** application was opened. If you select a specific file from a folder, it will start playing right away. The playback mode is always set to repeat all songs within the selected directory. During the playback you can perform following actions:

- Pressing the **left or right button** will move you to the previous or the next audio file in the list.
- Pressing the **back button** while the audio is playing will pause it.
- Pressing the **back button** while the playback is paused will get you to the list of the songs in the selected folder.
- Pressing the **confirm button** while the playback is paused will resume it.
- Pressing the **confirm button** while the audio is playing will temporarily pause the playback and bring up a menu with **move in song** and **save to favorites/delete from favorites** options. After selecting one of those options, or going back, the playback will resume.

- Selecting the **move in song** option will change the function of the **left and right buttons**. Pressing them will move you forward or backward in the song by 10 seconds. If you do not press either of the buttons for 10 second, the function of the **left and right buttons** will revert back to its original state.

Book reader

To make use of the **book reader** you first need to copy the book files to a BlindShell/Books folder of the phone, either to the internal memory of the phone or onto an SD card. Book reader can play audio files and read text (.txt) files. Every file in the first level of Book folder is recognized as a single book. Structured books with multiple files could be stored in such folder, in which any number of subfolders are allowed.

Main menu

- **Last book** - shows the last read book.
- **Books list** - contains a list of all your books.
- **Bookmarks** - shows a list of bookmarks you have created.

Book selection menu

- **Continue reading** - starts reading the book from the position from which you have left the reader the last time you were reading the book.
- **Read from the beginning** - starts reading the book from the beginning. Previous progress will be lost (except created bookmarks).
- **Browse content** - allows browsing content of the book by its chapters, parts, or sections.
- **Bookmarks** - shows a list of bookmarks you have created for the book.

While listening to a book

- Pressing the **left or right button** will move you to the previous or the next section of the book.
- Pressing the **back button** during the playback will pause it.
- Pressing the **back button** while the playback is paused will get you to the current played part of the book in the book content.
- Pressing the **confirm button** while the playback is paused will resume the playback.
- Pressing the **confirm button** during the playback will temporarily pause the playback and bring up a playback context menu with options. After selecting one of those options, or going back, the playback will resume.

Playback context menu

- **Jump to a percent of the book** - allows you to enter percent of the book (0-99) that reader will jump to.
- **Add a bookmark** - creates a bookmark of the current position in the book. You will be prompted to enter a name of the bookmark upon its creation. If nothing is entered, timestamp will used as the bookmark's name.

Playback context menu - audio file specific

- **Move in book** - changes the function of the left and right buttons. Pressing them will move you forward or backward in the book by 10 seconds. If you do not press either of the buttons for 10 second, the function of the left and right buttons will revert back to its original state.

Playback context menu - text file specific

Speech rate - changes the book readers rate of the speech. **Speech language** - changes the language in which the book is read.

Internet radio

Internet radio allows you to listen to radio stations via Internet. You can choose country of origin for the radio station, or search radio stations by genre. Pressing the **confirm button** while a radio station is being played will allow you to label it as a favorite radio stations.

Resume playback - plays the last played radio station. **Popular stations** - contains list of radio stations which are most listened to in your country. There are up to 90 stations. **Categories** - contains radio stations sorted by genre. Select the genre to see the corresponding stations. **Country** - contains a list of continents and countries, respectively. After selecting a country **popular stations, categories, and search** menu items are available for the selected country. **Favorites** - contains list of radio stations which have been labeled as favorites. **Search** - searches for a radio station by its name. Its is possible to type whole name or part of the name of the radio station's name you want to find. All radio stations matching the input criterion will be displayed.

Important notice: In order to make use of the **Internet radio** application, you have to be connected to the Internet via WiFi or a mobile network.

FM radio

The phone has an integrated FM receiver. For correct operation of this applications earphones need to be plugged in. The earphones serve as an antenna, without which the radio signal would be noisy.

Tuning into a radio station

- Selecting the **play radio** menu item will start playing the radio station which was played the last time the **FM radio** application was opened.
- Pressing the **left and right buttons** will automatically tune the previous/next radio station, without the need of adjusting the frequency manually.
- Pressing the **down button** will announce the frequency and name of the currently playing radio station, if available.

Other FM radio options

If you press the **confirm button** while a radio station is playing following options will be available:

- **Save to favorites** - labels the radio station as favorited. Afterwards, you can access it quickly via the **favorites** menu.
- **Play from speaker** - the phone will use the built-in speaker instead of the plugged earphones to output the sound. Once playing from the speaker, you can switch back to the earphones by selecting the **play from headphones** option.
- **Manual tuning** - switches the mode from auto tuning to a manual one. In this mode the **left and right buttons** will move you by 0.1MHz instead of jumping to next available radio station. Once in the **manual tuning** mode, you can switch back to automatic tuning by selecting the **automatic tuning** option.
- **Enter frequency** - Allows you to enter a radio frequency manually.

Vision aids

Vision aids applications offers tools, which are designed specifically for blind and low vision users. BlindShell Classic offers following applications:

- **Color indicator**
- **Localization**
- **Object tagging**

Color indicator

Color indicator application is used to detect colors of objects around you. It uses the camera of the phone which is located on the rear side of the phone, next to the **SOS emergency button**. Hold the phone few centimeters from the scanned object and start the recognition by pressing the **confirm button**. The detected color will be announced afterwards. To increase the accuracy repeat the process several times and pick the color which was announced in the majority of the detection.

Important note: Color indicator application is highly dependent on the ambient lighting and does not perform well in low-light conditions. In these conditions the result of the color indications may not correspond to reality.

Localization

Localization application aggregate data from GPS, WiFi networks, and mobile network to estimate the nearest physical address in your vicinity, your GPS location, and its accuracy. The whole process of estimating your location may take up to 30 seconds. The result menu contains following information:

- Estimated address.
- Location estimation accuracy.
- Option to send the estimated location via SMS.
- GPS coordinates.

Important notice: The accuracy of the location estimation may vary. You should not rely on the result absolutely, but take the accuracy in account.

Important notice: In order to make use of the **localization** application, you have to be connected to the Internet via WiFi or a mobile network.

Object tagging

The object tagging function can help you tag and later identify objects that are otherwise hard to tell apart by touch - like bags or boxes with spices, cosmetic and household cleaning products, bottles, cans and so on. For this function you will need coded tags that can be purchased separately from your BlindShell distributor.

The tags are squares stickers about one and half centimeter by one one and half centimeter. They have to be peeled of the sheet and stuck on the object you want to tag. The tags are to be read by the phone's back camera lense. Each tag is unique and when you tag an object, your phone will associate that tag with your spoken or written description. Later on, when you read the tag again, the description will be played back to you.

Tagging a new object

- Pick an object you want to tag.
- Peel one square tag off the sheet with tags and stick it to the object. If

- possible, avoid sticking the tag on rough or curved parts of objects.
- Open the tagging application and select the "add tag" option. Periodic tapping starts, informing you that the detection is running.
 - Point the camera of your phone towards the tag on your object. The recommended distance is around 20 to 30 centimeters or inches. It may take some practice to get it right.
 - After the tag is read, you will be asked if you want to record or write a description. If you choose to record, the recording will start after a beep and will automatically finish after five seconds. If you choose to type, a standard keyboard will appear and you will be able to input the description this way.

Identifying an object

- Select the "read tags" option from the menu, the phone will start tapping periodically once the camera is ready for tag reading.
- Point your phone camera towards the tag like when tagging a new object
- Once the tag is read, the camera mode will be paused and the description will be read back to you
- Pressing the **back button** will return you to the camera mode for another tag. The description can be repeated with the **down button**.

Editing and deleting tags

The "list tags" option in the menu brings you to the list of your tagged objects. Here you can edit descriptions or delete a tag that is no longer in use.

Settings

This section of the main menu allows you to customize behavior of the phone. It also contains settings of the networks, SIM cards and a possibility to update the phone to a newer version, when an update is available.

Sounds

This section contains various settings of the sounds and voice output of the phone.

Profiles

Allows you to set the sound profile used for incoming calls and messages. Alternatively you can access this setting by long pressing the **hash button**.

- **Normal** - Sounds and vibrations will be used for the incoming calls and messages.
- **Vibration** - Only vibrations will be used for the incoming calls and messages.
- **Silent** - No sound or vibration will be used for the incoming calls and messages.

Volume

This menu item allows you to set the volume level for incoming calls, notifications, and alarm.

Melodies

This menu item allows you to set a melody for incoming calls, notifications, and alarms. If you want to use your own melody, copy the melody file to the phone's storage. For ringtones use the **Ringtones** folder, for notifications use the **Notifications** folder, and for alarm use the **Alarms** folder.

Voice output

This menu item allows you to set the speech rate of the phone's voice and the level of intonation. You can try various speech rates to find out which fits you the best. You can also turn the information about time and date, which is announced after unlocking your phone, on or off.

Feedback

Allows you to set methods which the phone uses to provide you with feedback (other than the speech output). You can select to be provided only with sounds. Those are beeps and sound, which are played when moving through a menu, writing a text, or locking the phone. Other possible provided feedback are vibrations, which are used in the same circumstances as the beeps and sounds. You can also choose to be provided with both types of feedback at once.

Notification reminder

When you receive a message or miss a call, which produces a missed event notification, a notification sound is played. If you enable the **notification reminder** option, a less intrusive beep is played every five minutes, to alert you about the missed notifications. This periodic beeping will be dismissed, once you check your missed events.

Keyboard

This section contains settings regarding inputting text and using the keypad lock.

Keypad lock

Selecting this menu item enables or disables the possibility to lock the phone using the **asterisk key**. The **keypad lock** is mainly intended for prevention of unwanted presses of the phone's keys.

- When the keypad lock is enabled, the phone can be locked and switched to a sleep mode by long pressing the **asterisk key**. The phone will be also automatically locked after the screen timeout time. To unlock the phone long press the **asterisk key**.
- When the keypad lock is disabled, the phone will also automatically switch to the sleep mode after the screen timeout time, but the keyboard won't automatically lock. To wake the phone up, press **any key**. This key will only wake the phone and will not be interpreted by the phone in other way. You can still lock your phone by long pressing the asterisk key and unlock it the same way, but it won't happen automatically.

Reading during deleting characters

This option affects the deletion of characters when writing a text.

- **Read last remaining character after deletion** - when deleting characters using the **back button** the last remaining character, after the deletion, will be read.
- **Read deleted character** - when deleting characters using the **back button** the just deleted character will be read.
- After deletion, you can press the **down button** which will read the remaining text to you.

Repeating during writing characters

During writing a text you can choose following options of repetition of the input text.

- **Repeat word after you write a space** - Repeats the last written word after you input a space or a punctuation mark.
- **Repeat whole text after you write a space** - Repeats the whole written text after you input a space or a punctuation mark.
- **Do not repeat** - Does not repeat anything after you input a space or a punctuation mark.. You should use the **down button** to repeat the input text manually.

Display

This section contains settings regarding displaying information on the device screen and the screen timeout.

Brightness setting

This option allows you to change the display brightness - higher level means brighter screen, but shorter battery life.

Screen timeout

This options allows you to set a period of inactivity, after which the phone will go to the sleep mode, to save battery power. When the keypad lock is enabled, the phone keypad will be locked after the timeout as well.

Color scheme

This option allows you to select from four different color schemes, first color denotes the color of the text and the second color denotes the background color. There are following options:

- **White on black**
- **Black on white**
- **White on blue**
- **Black on yellow**

Main menu style

This option allows you to choose the appearance of the main menu. You can either use plain text, icons, or combination of text with icons.

Set huge text size

This option allows you to enlarge the font used in the menus. Be aware that this will break the word wrapping and thus a single word might be stretched over multiple lines.

Networks

This section allows you to set various connectivity settings such as WiFi, Bluetooth, mobile networks, or PIN code.

Wifi

To make use of the Wifi networks, you first need to enable the Wifi. When you do not intend to use the WiFi, you can turn it off by selecting the **disable wifi** menu item.

This will save some battery.

Network list

This menu item will show you all available networks in your vicinity as well as past saved networks.

- To connect to a network, select it with the **confirm button** and select the **connect to network** option afterwards. If the Wifi network is protected by a password, you will be prompted to enter the password.
- Alternatively you can make use of the WPS button. Select the **Connect with WPS push button** option and afterwards press the WPS button on your router. The two devices should be paired after some time.
- **Information about network** will provide you with additional information about the Wifi network such as signal strength or network availability.
- To remove a saved network from the list, go to the network list, select the respective Wifi network and choose **forget network** option.

If the network you want to connect to has a hidden SSID, you can connect to it via the **Connect to hidden network** option. In this case first enter the SSID and afterwards its password .

Wifi connection via text file

You can connect your phone to PC via a cable and create a plaintext file in the root folder of the storage.

- The name of this file should be wifi.txt (case-insensitive) and it should contain two lines.
- The first line of this file is the name of the wifi network (case insensitive) and the second line is the network password (case-sensitive).
- Every time an attempt to connect to an encrypted network is made from the BlindShell menu, BlindShell will check for presence and correct format of this file.
- If the file is found and is valid, the phone will check, whether the first line, with the network name, matches the selected network name.
- If so, the password keyboard won't even be shown and the password from the file will be used instead.

Bluetooth

The phone supports audio Bluetooth devices - speakers, headphones, handsfree. A device has to be paired before it can be used for the first time.

Important notice: If you connect an audio device, your audio output (including the synthetic voice) will be played through that audio device. If the device fails to function properly, you might end up without any useful feedback. In that case you can always disconnect a faulty audio device by raising the volume beyond the maximum level, i.e. pressing the volume button few times in a rapid succession.

Turning the Bluetooth on and off

The Bluetooth function is off by default. This helps to save energy of your battery. We recommend that you turn Bluetooth off if you don't use it. You can turn Bluetooth on and off using the first option in the menu.

How to pair a new device

- Enable the pairing mode on your device. Some devices are in the pairing

mode by default when turned on and out of signal. Other devices have a special key or combination of keys that will trigger the pairing mode. This is device-specific and can be found in the manual of the device.

- Once your external device is in the pairing mode, select the **scan for devices** option in the menu. The scan will take up to half a minute after which a list of nearby devices will be presented to you.
- Selecting a device from the list by pressing the **confirm button** will trigger the pairing process. This will generally take few seconds.
- Some devices may require entering a verification code. If this happens, you need to type a code given by BlindShell on your external device.

Connecting and disconnecting a device

A newly paired device should be generally connected automatically. However, this is not the case with all devices. Sometimes it's also useful to be able to connect and disconnect devices at will, without pairing and unpairing them.

To connect or disconnect a device:

- Select the **paired devices** menu item, all paired devices will appear in this menu
- Selecting a device from the list by pressing the **confirm button** will open a menu where you can select an operation to do with your device (connect, disconnect, unpair)
- If you choose connect or disconnect, an attempt to connect or disconnect a device will be made. Once it succeeds, the sound output of the phone will be played through the device.
- If you choose to unpair a device, this device will become unavailable until you pair it again. Some devices may require this action before they can be connected to another phone.

Notes about Bluetooth

- Before you can connect a paired device, you usually need to turn it on by a switch on the device. Some devices may turn themselves off after a period of inactivity.
- There is a vast number of Bluetooth devices on the market. BlindShell cannot guarantee compatibility with every device available. Your BlindShell vendor might be able to give you an advice or offer you a tested model.
- Due to possible radio interference and due to nature of the Bluetooth protocol itself, there is no guarantee that a device will be found during the scan procedure. If you can't see or pair your device, make sure it's still in the pairing mode and then try the procedure again. If the problem prevails, make sure there is no strong source of interference in your area, like another Bluetooth device, a WiFi router or some other radio device in a close proximity.

Mobile data

Mobile data can be turned on and off by selecting this menu item. This can be alternatively accessed from the **information about state** menu.

Pin code

- You can activate or deactivate the request for PIN code at the phone startup in the PIN code menu. To change the PIN code you need to activate it first.
- If you enter the PIN code incorrectly three times in a row, your SIM card will be temporarily blocked and PUK code will be requested. If you enter the PUK code incorrectly ten times in a row, your SIM card will be blocked permanently.

- If you use two SIM cards, select the respective SIM card prior to changing, enabling, or disabling the PIN code.

SIM cards

This option will be visible only when there are two SIM cards used in the phone. You can select preferred SIM card for outgoing calls, outgoing messages, or data transfers.

BlindShell update

Important notice: In order to update your phone, you have to be connected to the Internet via WiFi.

Updates for the BlindShell phone are released for two reasons:

- Enhancing current features and fixing bugs
- Bringing new features

When a new update is available for download you will receive a notification message. This message will appear in the missed events and in your received messages.

To perform the update first select the **check for update** menu item. When new update is available you will be able to download it. There will be also a short description of the contents of the updates.

After the update file is downloaded, you need to install it by selecting the **install update** menu item. This process will take several minutes. During the update the phone will speak in robotized voice. You will be also informed about the progress of the update.

Important notice: Do not switch your phone or do other actions with your phone during the update process. Doing so might result in damaging the phones software and subsequent necessity to send the phone for repair.

Time and date settings

Time and date are usually automatically set from the network, when SIM card is inserted in the phone. However you can change the settings here.

- To enter a custom time and date first disable the automatic time and date setting. This option might not be displayed, when date and time were not able to be obtained from the network.
- **Set time** menu item accepts 4 digits as a time. The first pair of digits represents hours and the second pair of digits represents minutes.
- To set date first select the **set date** menu item, afterwards enter day, month, year, and select the **save date** menu item.
- You can always revert back to the time and date from the network by selecting the **enable automatic time and date** menu item.

About phone

In this section, you can check out some technical information about your phone, like software version and free internal and SD card storage. There is also a shortcut to open a Service menu, which can be used to perform some advanced actions, like

backup or factory reset.

Service menu

The service menu is a feature that simplifies certain service operations. For the service menu, the phone has to reboot in a special mode, outside of the ordinary operating system. The service menu is not a part of the BlindShell system and you will not be able to receive calls or operate your phone in a standard way in this mode.

For the backup and restore functions of the service menu, you will need to insert an SD card first. The card is used as a storage for the backup files.

The service menu has the following items:

Backup data

The backup function will create an file containing internal user data. This exported file does not contain internal storage data normally accessible as files by user when connected to a computer. For example, music or book files, voice recordings and others are excluded from this backup.

This is the content of the backup:

- BlindShell preferences
- contacts
- messages
- calendar
- call history
- notes
- alarms
- object tagging database
- e-mail configuration

The backup is stored in a file called `blindshell_backup.bin`

Restore data

The restore function will restore user data from a backup previously created using the **Backup data** function. Warning: **Your data will be overwritten by the restore operation.**

If there is no `blindshell_backup.bin` present on the SD card, an error will be announced.

Factory reset

This item will perform a so called factory reset of your phone. During this operation, all user data will be wiped and the phone will return to its original state. This also applies to any updates performed by user. After the factory reset, the BlindShell will be reverted to its original version.

Restart phone

This item will exit the service menu and restart the phone back to the normal mode of operation.

Information about state

The **information about state** can alternatively be brought up from anywhere, except when inputting text, by pressing the **up button**. It contains following items:

- **Time and date** - displays current time and date information. Pressing the **confirm button** will take you to the **calendar** application.
- **Signal strength** - displays the information about network signal
- **Battery state** - displays the remaining percentage of the battery
- **Wifi state** - displays information about the Wifi network, to which the phone is connected. Pressing the **confirm button** will take you to the Wifi settings.
- **Bluetooth state** - displays an information about connected Bluetooth devices

Manual

The **manual** menu item contains this document divided to sections to allow for better readability. It also contains a **start tutorial** option to start the interactive tutorial which was started when the device was powered on for the first time.

Missed events

This menu item contains notifications about new messages or missed calls. Once you check the corresponding message or call, by selecting it, the notification will be removed from the missed events list.

Switch off the phone

Selecting this option and its subsequent confirmation will switch off the phone.

Technical specification

- Mobile networks frequency bands:
 - GSM: 900/1800/1900MHz
 - WCDMA: 2100MHz
 - LTE-FDD: B1/B3/B7/B20
- CPU: Dual core 1.2GHz
- Memory:
 - RAM: 512MB
 - Internal storage: 4GB
 - Expandable by SD card
- Screen: 2.8 inch QVGA TFT color screen
- SIM cards: dual micro SIM card slots
- Camera: 2.0MPx
- Battery: 1800mAh
- Wifi
- Bluetooth
- GPS
- FM receiver
- LED flashlight
- SOS emergency button



This product is CE marked and fully complies with all applicable EU legislation.



At the end of the product's life you can return it to the supplier or manufacturer for free of charge disposal. This is to comply with 'The Waste Electrical and Electronic Equipment Directive' (WEEE).

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