



# Accessible Devices for people with a hearing impairment

## Tested devices

- The selected devices have been tested by an independent panel of people with a disability, coordinated by the non-profit association Passe-Muraille.
- This evaluation is based on predefined accessibility criteria taking into account the specific needs of the majority of people belonging to the same disability category.
- **We therefore do not guarantee that these devices can be optimally used by all people recognized as belonging to the disability category concerned.**
- This catalog will be updated regularly.

# Advantages of the devices

We recommend these devices for their various visual and tactile alerts that notify the user of incoming messages/calls, and also because of their programmable keys, ease of writing and receiving text messages/e-mails, and the possibility to make video calls.

It is important to note that all the devices running on Android 4.0.4 Ice Cream Sandwich have an accessibility menu as standard

It should be noted that the most recent, and most complete, versions of Android OS integrate:

- configuration of the accessibility menu on initial set-up of the device
- recognition of the caller through vibration
- a vibration creation module for the vibrate function



## List of tested devices

### A

[Apple iPhone 7 Plus](#)

### C

[Crosscall Trekker X4](#)

### D

[Doro 8035](#)

### F

[Fairphone 3](#)

### H

[Huawei Mate 10 PRO](#)  
[Huawei P20 PRO](#)

### N

[Nokia 1](#)  
[Nokia 4.2](#)  
[Nokia 5](#)

### O

[OnePlus7T Pro](#)  
[OnePlus8Pro](#)  
[OPPO Find X2Pro](#)

### S

[Samsung A5](#)  
[Samsung A7](#)  
[Samsung A8](#)  
[Samsung A9](#)  
[Samsung A50](#)  
[Samsung A51](#)  
[Samsung Galaxy A10](#)  
[Samsung J4+](#)  
[Samsung Galaxy Note 8](#)  
[Samsung Galaxy Note 10+](#)  
[Samsung S10](#)  
[Samsung S20+](#)  
[Sony Xpéria XZ Premium](#)



## Accessible mobile phones

We recommend these devices for their various visual and tactile alerts that notify the user of incoming messages/calls, and also because of their programmable keys, ease of writing and receiving text messages/e-mails, and the possibility to make video calls.







Very good



Good



Average

Evaluation	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>iPhone 7 plus (iOS 10)</p> 	<ul style="list-style-type: none"> <li>• Fast and easy configuration of the Accessibility mode via iTunes on a computer.</li> <li>• Very complete accessibility menu.</li> <li>• Magnifier function.</li> <li>• Effective voice command.</li> <li>• Image quality +++</li> <li>• Large screen.</li> <li>• Adjustment of brightness by reducing white points.</li> </ul>	<p>Possibility to download and configure screen-reading, voice-synthesis and voice-command software in Dutch via App Store.</p> <p>An adapted stylus can make it easier to operate the device.</p> 
<p>Deaf</p> 		<ul style="list-style-type: none"> <li>• Fast and easy configuration of the Accessibility mode via iTunes on a computer.</li> <li>• Very complete accessibility menu.</li> <li>• Effective voice command.</li> <li>• Voice Over: voice synthesis comes as standard (it not only reads all the menus and apps, but also web content).</li> <li>• NB: Voice Over requires the user to have prior knowledge of how it works.</li> <li>• Supports braille displays.</li> </ul>	



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Assessment	Model	Comments	Possible adaptation
Hard of hearing 	CrossCall Trekker X4 	<ul style="list-style-type: none"> <li>• Good perception of vibrations in the hand, inside a pocket, and on a support.</li> <li>• No choice of vibration.</li> </ul>	
Deaf 			



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Assessment	Model	Comments	Possible adaptation
Hard of hearing 	Doro 8035	<ul style="list-style-type: none"> <li>• Few vibration choices</li> <li>• Vibration hardly noticeable at a distance</li> </ul>	
Deaf 			



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Assessment	Model	Comments	Possible adaptation
Hard of hearing 	Fairphone 3 	<ul style="list-style-type: none"> <li>Designed in such a way that its parts are replaceable</li> <li>Weak perception when placed on a surface</li> </ul>	
Deaf 			





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Evaluation	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>HUAWEI Mate 10 PRO</p> 	<ul style="list-style-type: none"> <li>Accessibility menu seems complete but has certain limitations (inexistent or incoherent functions)</li> </ul>	
<p>Deaf</p> 			



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Assessment	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>HUAWEI P20 PRO</p> 	<ul style="list-style-type: none"> <li>Accessibility menu seems complete but has certain limitations (inexistent or incoherent functions).</li> </ul>	
<p>Deaf</p> 			



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<p>Hard of hearing</p> 	<p>Nokia 1</p> 	<ul style="list-style-type: none"> <li>• Low-cost device with a few interesting accessibility options to be evaluated by the future buyer.</li> <li>• Rather limited options</li> <li>• Most of the applications have to be downloaded and installed before use.</li> </ul>	
<p>Deaf</p> 			



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Hard of hearing 	Nokia 4.2 		
Deaf 			



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<p>Hard of hearing</p> 	<p>Nokia 5</p> 	<ul style="list-style-type: none"> <li>• The accessibility menu gets lost in the intricacies of a complex menu</li> <li>• The accessibility menu « Audition » is not available in the accessibility setup at starting</li> <li>• Vibration barely perceptible</li> <li>• Low quality screen</li> </ul>	<p>An adapted stylus can make it easier to operate the device</p> 
<p>Deaf</p> 			



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Assessment	Model	Comments	Possible adaptation
Hard of hearing	OnePlus 7T Pro	<ul style="list-style-type: none"> <li>Choice of low to high intensity but not very perceptible</li> </ul>	
Deaf			



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Assessment	Model	Comments	Possible adaptation
Hard of hearing		<ul style="list-style-type: none"> <li>• Not very stable on horizontal and vertical support</li> <li>• Vibration barely perceptible</li> </ul>	
Deaf			



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Hard of hearing 	OPPO Find X2 Pro 	<ul style="list-style-type: none"> <li>• Not very stable on horizontal and vertical support</li> <li>• 5 choices of vibration</li> </ul>	
Deaf 			





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Evaluation	Model	Comments	Adaptation is possible
Hard of hearing /	Samsung A5 	<ul style="list-style-type: none"> <li>• Large screen</li> <li>• Vibration barely perceptible</li> <li>• Possibility of programming direct access to a selection of accessibility options.</li> </ul>	An adapted stylus can make it easier to operate the device 
Deaf 			



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Assessment	Model	Comments	Possible adaptation
Hard of hearing 	Samsung A7 2018	<ul style="list-style-type: none"> <li>Choice of 6 different vibrations</li> <li>Vibration barely perceptible when device on a support</li> <li>LED notification</li> </ul>	
Deaf 			



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Evaluation	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>SAMSUNG Galaxy A 8</p> 	<ul style="list-style-type: none"> <li>• Samsung accessibility menu very complete and well implemented</li> <li>• Vibration very perceptible and configurable</li> </ul>	
<p>Deaf</p> 			



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Hard of hearing 	Samsung A9	<ul style="list-style-type: none"> <li>• 6 choices of vibration</li> <li>• Vibration hardly noticeable at a distance</li> </ul>	Possibility of downloading "Android Accessibility Suite" on Playstore
Deaf 			



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Hard of hearing 	Samsung A50 		
Deaf 			



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Assessment	Model	Comments	Possible adaptation
Hard of hearing 	Samsung A51 	<ul style="list-style-type: none"> <li>Weak perception when placed on a surface</li> <li>Instant transcription: Transcription of speech spoken close to the device. Between 70 and 80% effective. Quality decreases with distance</li> <li>Age-appropriate hearing enhancement (to be set up with headphones)</li> </ul>	
Deaf 			



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Hard of hearing 	Samsung Galaxy A10 		
Deaf 			



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Evaluation	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>Samsung Galaxy Alpha</p> 	<ul style="list-style-type: none"> <li>• Accessibility menu available on initial set-up of the device.</li> <li>• Simplified mode with large-sized icons.</li> </ul>	<p>Possibility to download and configure screen-reading, voice-synthesis and voice-command software in Dutch via Play Store.</p> <p>An adapted stylus can make it easier to operate the device. </p>
<p>Deaf</p> 		<ul style="list-style-type: none"> <li>• Accessibility menu available on initial set-up of the device.</li> <li>• Accessibility to be configured according to category and/or criteria.</li> </ul>	<p>Possibility to download and configure screen-reading, voice-synthesis and voice-command software in Dutch via Play Store.</p>





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Assessment	Model	Comments	Possible adaptation
Hard of hearing 	Samsung Galaxy J4 +	Vibration barely perceptible when device on a support	
Deaf 			



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Average

Evaluation	Model	Comments	Possible adaptation
Hard of hearing 	Samsung Galaxy Note 8 	<ul style="list-style-type: none"> <li>• Samsung accessibility menu</li> <li>• Sound detector</li> <li>• LED indicators</li> <li>• 6.3" screen</li> <li>• Integrated stylus</li> </ul>	
Deaf 			



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Average

Assessment	Model	Comments	Possible adaptation
Hard of hearing	Samsung Galaxy Note 10+ 	<ul style="list-style-type: none"> <li>• Good vibration</li> <li>• Choice of intensity from low to high</li> <li>• Weak perception when placed on a surface</li> </ul>	
Deaf			



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Evaluation	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>Samsung S10</p> 	<ul style="list-style-type: none"> <li>• Several choices of vibration intensity</li> <li>• Immediately perceptible if device on table</li> <li>• Adaptive brightness - automatic brightness (lock screen)</li> <li>• Smart pop-up view: 3 recent notifications or all notifications (icons)</li> <li>• LED flash notification</li> </ul>	
<p>Deaf</p> 			



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Assessment	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>Samsung S20 +</p> 	<ul style="list-style-type: none"> <li>• Sound quality enhancement of hearing aids</li> <li>• Bluetooth hearing aid connection</li> <li>• Choice of vibrations</li> <li>• Not very stable on horizontal or vertical support</li> <li>• Choice of vibrations and intensities</li> <li>• Automatic transcription of texts into text form</li> </ul>	
<p>Deaf</p> 			



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Evaluation	Model	Comments	Possible adaptation
<p>Hard of hearing</p> 	<p>Sony Xpéria XZ Premium</p> 	<ul style="list-style-type: none"> <li>Limited accessibility menu</li> <li>Large high resolution screen</li> <li>Light vibrations</li> </ul>	<p>An adapted stylus can make it easier to operate the device.</p> 
<p>Deaf</p> 			



## Accessible fixed-line phones

We recommend these phones for their large keys, high-contrast screen, and hands-free function.


Models	Visual impairment		Hearing impairment		Motor impairment	Mental impairment	Comments
	Visually impaired	Blind	Hard of hearing	Deaf			
<p>Maestro 6042</p> 	+	+	+	/	+	+	<p>Large white keys with large black characters or black keys with large white characters.            Caller name and number display via the appropriate Proximus services.            Hands-free function            LED indicator for incoming calls            Large backlit touch screen with medium-sized characters            Possibility to double the volume of the handset via a button on the front of the phone.            Adjustable speaker volume.            3 programmable direct dialling buttons.            Directory for up to 10 numbers.</p>

- + Suitable
- Not suitable
- +/- Can be used with its basic functions or with assistance

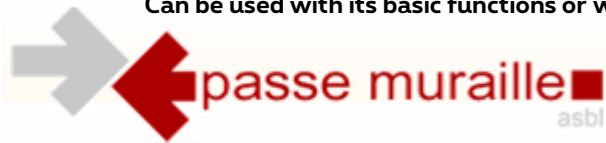


## Accessible fixed-line phones

We recommend these phones for their large keys, high-contrast screen, and hands-free function.

Models	Visual impairment		Hearing impairment		Motor impairment	Mental impairment	Comments
	Visually impaired	Blind	Hard of hearing	Deaf			
<p>Twist 392</p> 	+	+	+	/	+	+	<p>Hands-free function with adjustable volume on the base station. This makes it easier to use the phone's call and answer functions.</p> <p>Moreover, the programmable call keys on the base station (with the possibility to place a photo in the button) make the phone very suitable for people with a mental or motor impairment or for the elderly.</p> <p>Need for training or assistance with the programming of extra functions for the blind and visually or mentally impaired.</p> <p>Switch to the "T" position possible, but not very efficient.</p> <p>However, the adjustable volume via the handset and the amplification function allow you to listen at a comfortable level thanks to the loud, high-quality sound.</p>

- + Suitable
- Not suitable
- +/- Can be used with its basic functions or with assistance







## Adapted rate plans

- If you want to call, text and surf freely, we recommend our Mobilus subscription from €15/month [www.proximus.be/mobilus](http://www.proximus.be/mobilus)
- If you want to call, text and surf without exceeding your budget, we recommend our Mobilus Full Control subscription from €15/month [www.proximus.be/fullcontrol](http://www.proximus.be/fullcontrol)
- If you want to combine your Mobilus or Mobilus Full Control subscription with an Internet, television and fixed telephony subscription, check out our Tuttimus offer [www.proximus.be/tuttimus](http://www.proximus.be/tuttimus)

## Social rate

People with a disability may, under certain conditions, be eligible to benefit from the social rate. [www.proximus.be/social](http://www.proximus.be/social)





## Customer service

Our customer service can be reached:

- by phone: 0800 55 800
- [by e-mail](#)

If you would like to benefit from an even easier experience, you are welcome to visit our Proximus Centers. You can set up an appointment in order to be helped immediately and avoid having to queue.

[www.proximus.be/rendez-vous](http://www.proximus.be/rendez-vous)





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