

Accessible Devices for people with a hearing impairment







- 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





Ø

List of tested devices

Α

Apple iPhone 7 IOS Apple I Pad Pro Apple iPhone 7 Plus Apple iPhone 11 Pro Apple iPhone 13 AppleiPhone SE3

C

Crosscall Trekker X4

D

Doro 8035

F

Fairphone 3 Fairphone 4

Н

<u>Huawei Mate 10 PRO</u> <u>Huawei P20 PRO</u> Ν

Nokia 1 Nokia 4.2 Nokia 5 Nokia 5.4 Nokia 8.3

0

OnePlus7T Pro OnePlus8Pro One Plus 8T One Plus 9 Pro One Plus 10 Pro 5G One Plus Nord CE One Plus Nord CE2 One + Nord 2 OPPO A54 5G OPPO Find X2Pro OPPO Find X5 Pro OPPO Find X5 Pro OPPO Reno 4Pro 5G OPPO Reno 6 5G

S

Samsung A5 Samsung A7 Samsung A8 Samsung A9 Samsung A50 Samsung A51 Samsung A71 Samsung Galaxy A10

Samsung Galaxy A12 Samsung Galaxy A22 Samsung Galaxy A32 5G Samsung Galaxy A52 Samsung Galaxy A52 5G Samsung Galaxy A53 Samsung J4+ Samsung Galaxy Note 8 Samsung Galaxy Note 10+ Samsung Galaxy Note 205G Samsung Galaxy S10 Lite Samsung Galaxy S215G Samsung Galaxy S21 FE 5G Samsung Galaxy S22 5G Samsung Galaxy Z Flip 5G Samsung Galaxy Z Fold 5G Samsung Galaxy Z Fold 35G Samsung S10 Samsung S20+ Samsung S20 FE 5G Sony Xpéria XZ Premium

Χ

Xiami Redmi Mi 11i Xiami Redmi Note 10 Xiaomi Redmi 10 Xiaomi 11 Lite 5G NE Xiaomi 11T Pro Xiaomi 12 Xiaomi 12 Pro













Assessment	Model	Comments
Hard of hearing	APPLE iPad 2020	 If you already have an iPhone or an iPad configured in terms of accessibility, you can transfer accessibility preferences. Not very stable on a vertical support. It is recommended to use an appropriate cover. LED flash alerts Detection and recognition of 10 different sounds including baby crying, doorbell,
Deaf		
		5













Assessment	Template	Comments	Possible adaptation
Hard of hearing	IPHONE 7 IOS 14	 Bluetooth hearing aid connection Choice of vibrations Moderate vibration intensity LED flash for alerts 	
Deaf ①①			













Evaluatio n	Model	Comments	Possible adaptation
Hard of hearing	iPhone 7 plus (iOS 10)	 Fast and easy configuration of the Accessibility mode via iTunes on a computer. Very complete accessibility menu. Magnifier function. Effective voice command. Image quality +++ Large screen. Adjustment of brightness by reducing white points. 	Possibility to download and configure screen-reading, voice-synthesis and voice-command software in Dutch via App Store. An adapted stylus can make it easier to operate the device.
Deaf		 Fast and easy configuration of the Accessibility mode via iTunes on a computer. Very complete accessibility menu. 	
		 Effective voice command. Voice Over: voice synthesis comes as standard (it not only reads all the menus and apps, but also web content). NB: Voice Over requires the user to have prior knowledge of how it works. Supports braille displays. 	













Assessment	Model	Comments
Hard of hearing	APPLE iPhone 11 Pro	 If you already have a configured iPhone, you can transfer accessibility preferences. Vibra alert function OK Tactile caller identification Not very stable on a vertical support. It is recommended to use an appropriate cover. LED flash alerts Detection and recognition of 10 different sounds including
Deaf		baby crying, doorbell,













Assessment	Model	Comments
Hearing-impaired	Apple I Phone 13	
Deaf		













Assessment	Model	Comments
Hearing-impaired	Apple I Phone SE 3	Weakly perceptible vibration
Deaf		













Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	CrossCall Trekker X4	 Good perception of vibrations in the hand, inside a pocket, and on a support. No choice of vibration. 	
Deaf			













Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	Doro 8035	 Few vibration choices Vibration hardly noticeable at a distance 	
Deaf			













Assessment	Model	Comments	Possible adaptation
Hard of hearing	Fairphone 3	 Designed in such a way that its parts are replaceable Weak perception when placed on a surface 	
Deaf			













Assessment	Model	Comments
Hearing-impaired	Fairphone 4	 Very perceptible vibration But no vibrating mode settings No visual notification
Deaf	Fairphone 4	













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	HUAWEI Mate 10 PRO	Accessibility menu seems complete but has certain limitations (inexistant or incoherent functions)	
Deaf	www.		













Assessment	Model	Comments	Possible adaptation
Hard of hearing	HUAWEI P20 PRO	Accessibility menu seems complete but has certain limitations (inexistant or incoherent functions).	
Deaf			













Assessment	Model	Comments	Possible adaptation
Hard of hearing	Nokia 1	 Low-cost device with a few interesting accessibility options to be evaluated by the future buyer. Rather limited options Most of the applications have to be downloaded and installed before use. 	
Deaf			
999			













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Nokia 4.2		
	Monday, Feb 25 · TITE		
Deaf			
\bigcirc			













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Nokia 5	 The accessibility menu gets lost in the intricacies of a complex menu The accessibility menu « Audition » is not available in the accessibility setup at starting Vibration barely perceptible Low quality screen 	An adapted stylus can make it easier to operate the device
Deaf	A STATE OF		













Assessment	Model	Comments
Hard of hearing	Nokia 5.4	 Low vibration intensity No tactile caller identification Unstable on horizontal or vertical support. It is recommended to use an appropriate cover.
Deaf		
0		













Assessme nt	Template	Comments	Possible adaptation
Hard of hearing	Nokia 8.3	No choice of vibration.Very low vibration intensity	
Deaf	(8.30 Parts)		













Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	OnePlus 7T Pro	Choice of low to high intensity but not very perceptible	
	#3V3# 3JT732		
Deaf			













Assessment	Model	Comments	Possible adaptation
Hard of hearing	OnePlus 8 Pro	 Not very stable on horizontal and vertical support Vibration barely perceptible 	
Deaf	Centus		













Assessment	Model	Comments
Hard of hearing	OnePlus 8T	 Low vibration intensity Instant subtitles, but only available in English Unstable on horizontal or vertical support. It is recommended to use an appropriate cover.
Deaf		













Assessment	Model	Comments
Hearing-impaired	OnePlus 9 Pro	 Vibration is very difficult to perceive Not very stable on a flat support
Deaf		













Assessment	Model	Comments
Hearing-impaired	OnePlus 10 Pro 5G	 5 vibration patterns for tactile identification + synchronization with ringtone Hardly perceptible vibration
	Li Li	
Deaf	ROX ()	













Assessment	Model	Comments
Hearing-impaired	OnePlus Nord CE	 Vibration is very difficult to perceive Not very stable on a flat support 5 choices of vibration modes to identify the caller
Deaf	ORIGINA III	













Assessment	Model	Comments
Hearing-impaired	ONEPLUS Nord CE2	 No tactile identification Vibration barely perceptible Sound amplifier (headphones) Instant subtitles (if provided in the video)
Deaf		













Assessment	Model	Comments
Hearing-impaired	OnePlus Nord 2	 Distinctly perceptible vibrations Switch Access Live caption (English only)
Deaf		













Assessment	Model	Comments
Hearing-impaired	OPPO A54 5G	 Vibration is difficult to perceive Not very stable on a flat support No tactile caller identification
	OPPO A54	
Deaf	56	













Assessment	Model	Comments	Possible adaptation
Hard of hearing	OPPO Find X2 Pro	 Not very stable on horizontal and vertical support 5 choices of vibration 	
	19 35		
Deaf			













Assessment	Model	Comments
Hearing-impaired	OPPO Find X3 Lite	 Hardly perceptible vibration intensity Sound amplification: only with wired headphones Subtitle activation: sometimes unreliable
	OPPO Find X3 Lite	
Deaf		













Assessment	Model	Comments
Hearing-impaired	OPPO FIND X5 Pro	 Choice of 25 ringtones with matching vibration pattern Adjustable vibration intensity but remains weak
Deaf	0076	













Assessme nt	Template	Comments	Possible adaptation
Hard of hearing	OPPO Reno 4 Pro 5G	 Not very stable on horizontal and vertical support No choice of vibration. Vibration barely perceptible 	
Deaf			













Assessment	Model	Comments
Hearing-impaired	OPPO RENO 6 5G	 5 choices of vibration Distinctly perceptible vibrations (adjustable intensity, but no customization) Switch Access Sound amplifier
Deaf		













Evaluation	Model	Comments	Adaptation is possible
Hard of hearing /	Samsung A5	 Large screen Vibration barely perceptible Possibility of programming direct access to a selection of accessibility options. 	An adapted stylus can make it easier to operate the device
Deaf			













Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	Samsung A7 2018	 Choice of 6 different vibrations Vibration barely perceptible when device on a support LED notification 	
Deaf			













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	SAMSUNG Galaxy A 8	 Samsung accessibility menu very complete and well implemented Vibration very perceptible and configurable 	
Deaf			













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy A 12	 Very perceptible vibration intensity Tactile caller identification: 5 vibrate options Gesture control must be activated. Examples: double-tap to
	ING VAIZ	 turn on the screen, swipe to take a screenshot Visual notification: choice between screen flash or camera flash Stable on horizontal or vertical support.
Deaf	SAMSUR	













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy A22	5 vibration patterns for tactile identification + synchronization with ringtone
	000 000 000 000 000 000 000 000 000 00	
Deaf	SAMSUN	













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy A32 5G	 Vibration is difficult to perceive Not very stable on a flat support 5 choices of vibration Light notification (flash or screen) Sound recognition and notification Instant transcripts
Deaf		
	1000	













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy A 52	 Very perceptible vibration intensity Tactile caller identification: 5 vibrate options Gesture control must be activated. Examples: double-tap to turn on the screen, swipe to take a screenshot Visual notification: choice between screen flash or camera flash Stable on horizontal or vertical support. Disable animations
Deaf		Subtitles Instant transcription













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy A52 5G	 6 choices of vibration Visual notification by flashing light Note: simple tree structure, but the extremely large choice of options may render the use of the device a bit more complex. Live transcribe Possibility to connect Bluetooth compatible hearing aids Switch Access Sound amplifier
Deaf	\$:	Sound amplifier













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy A53	 Vibrations hardly perceptible despite adjustable intensity Amplification of distant sounds Connection to a hearing aid with sound adaptation Notification by light flash Notification by colored flashing of the screen Instant transcripts Instant subtitles (if available in the media)
Deaf		













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy S21 5G	 Very perceptible vibration intensity Tactile caller identification: 10 vibrate options Gesture control must be activated. Examples: double-tap to turn on the screen, swipe to take a screenshot Visual notification: choice between screen flash or camera flash Stable on horizontal or vertical support. Amplification of the surrounding sound (with headset)
Deaf		 Sound notifications (smoke detector, shouts, sirens, baby sounds, barking dog, doorbell rings, knocks, appliance beeps, running water, landline phone rings) by vibrations, light flash or via connected watch. Disable animations Subtitles Instant transcription Compatible with some hearing aids













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy S21 FE 5	 Very perceptible vibration Amplification of distant sounds Connection to a hearing aid with sound adaptation Notification by light flash Notification by colored flashing of the screen
Deaf		













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy S22 5G	 Very perceptible vibration Amplification of distant sounds Connection to a hearing aid with sound adaptation Notification by light flash Notification by colored flashing of the screen
Deaf		













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy S22	 Very perceptible vibration Amplification of distant sounds Connection to a hearing aid with sound adaptation Notification by light flash Notification by colored flashing of the screen
Deaf		









F		Ō	Good
15	4	÷	



Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	Samsung A9	 6 choices of vibration Vibration hardly noticeable at a distance 	Possibility of downloading "Android Accessibility Suite" on Playstore
Deaf			













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Samsung A50		
Deaf			













Assessment	Model	Comments	Possible adaptation
Hard of hearing	Samsung A51	 Weak perception when placed on a surface Instant transcription: Transcription of speech spoken close to the device. Between 70 and 80% effective. Quality decreases with distance Age-appropriate hearing enhancement (to be set up with headphones) 	
Deaf			













Assessme nt	Template	Comments	Possible adaptation
Hard of hearing	Samsung A71	 Bluetooth hearing aid connection Sound quality enhancement of hearing aids Not very stable on horizontal or vertical support Choice of vibrations and intensities Automatic transcription of texts into text 	
Deaf		form	













Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	Samsung Galaxy A10		
Deaf			













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Samsung Galaxy Alpha	 Accessibility menu available on initial set-up of the device. Simplified mode with large-sized icons. 	Possibility to download and configure screen-reading, voice-synthesis and voice-command software in Dutch via Play Store. An adapted stylus can make it easier to operate the device.
Deaf OOO		 Accessibility menu available on initial set-up of the device. Accessibility to be configured according to category and/or criteria. 	Possibility to download and configure screen-reading, voice-synthesis and voice-command software in Dutch via Play Store.













Assessme nt	Template	Comments	Possible adaptation
Hard of	Samsung Note 20 5G	 Bluetooth hearing aid connection Sound quality enhancement of hearing aids Not very stable on horizontal or vertical support Choice of vibrations and intensities Automatic transcription of texts into text form 	
Deaf			













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













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Samsung Galaxy Note 8	Samsung accessibility menuSound detectorLED indicators6.3" screen	
	W. A. B.	Integrated stylus	
Deaf			













Assessme nt	Model	Comments	Possible adaptation
Hard of hearing	Samsung Galaxy Note 10+	Good vibrationChoice of intensity from low to highWeak perception when placed on a surface	
Deaf			













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy Z Flip 3 5G	 Instant transcript and subtitles Hearing aids compatible (to be verified according to the type of hearing aid) Sound notification Surrounding sound amplification Sound adjustment barely perceptible by conduction Relatively simple tree structure, but the extremely large
Deaf		choice of options renders the use of the device more complex. Note: to configure the visual and sound identification of the caller, go through the "contact" app.













Assessment	Model	Comments
Hard of hearing	Samsung Galaxy Z Fold 2 5G	 Low vibration intensity Tactile caller identification: 11 choices Gesture control must be activated. Examples: double-tap to turn on the screen, swipe to take a screenshot, Visual notification: choice between screen flash or camera flash Unstable on horizontal or vertical support. It is recommended to use an appropriate cover.
Deaf		 Instant transcripts: input can be improved, but readable and relatively efficient. Available in several languages Instant subtitles: only available in English Sound detector: baby crying and doorbell













Assessment	Model	Comments
Hearing-impaired	Samsung Galaxy Z Fold 3 5G	 17 choices of vibration Visual notification by flashing light Live transcribe Possibility to connect Bluetooth compatible hearing aids Switch Access Sound amplifier
Deaf		













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Samsung S10	 Several choices of vibration intensity Immediately perceptible if device on table Adaptive brightness - automatic brightness (lock screen) Smart pop-up view: 3 recent notifications or all notifications (icons) LED flash notification 	
Deaf			













Assessme nt	Template	Comments	Possible adaptation
Hard of hearing	Samsung Galaxy S10 Lite	 Bluetooth hearing aid connection Sound quality enhancement of hearing aids Not very stable on horizontal or vertical support Choice of vibrations and intensities 	
Deaf		 Automatic transcription of texts into text form Sound detector (baby crying and doorbell) 	













Assessment	Model	Comments	Possible adaptation
Hard of hearing	Samsung S20 +	 Sound quality enhancement of hearing aids Bluetooth hearing aid connection Choice of vibrations Not very stable on horizontal or vertical support Choice of vibrations and intensities Automatic transcription of texts into text form 	
Deaf			













Assessment	Model	Comments
Hard of hearing	Samsung S20 FE 5G	 Low vibration intensity Tactile caller identification: 6 choices Gesture control must be activated. Examples: double-tap to turn on the screen, swipe to take a screenshot Visual notification: choice between screen flash or camera flash Unstable on horizontal or vertical support. It is recommended to use an appropriate cover.
Deaf		 Instant transcripts: input can be improved, but readable and relatively efficient. Available in several languages Instant subtitles: only available in English Sound detector: baby crying and doorbell













Evaluation	Model	Comments	Possible adaptation
Hard of hearing	Sony Xpéria XZ Premium	 Limited accessibility menu Large high resolution screen Light vibrations 	An adapted stylus can make it easier to operate the device.
Deaf	A		
000			













Assessment	Model	Comments
Hearing-impaired	Xiaomi Redmi Mi 11i	 Vibration is difficult to perceive Not very stable on a flat support No tactile caller identification
Deaf	wee	













Assessment	Model	Comments
Hearing-impaired	Xiaomi Redmi Note 10	Vibration is very difficult to perceive
Deaf	2 400	













Assessment	Model	Comments
Hearing-impaired	Xiaomi Redmi 10	 Distinctly perceptible vibrations (adjustable intensity (low, medium, high or off) - no customization Switch Access Live caption (English only)
	14.23	
Deaf		
00		













Assessment	Model	Comments
Hearing-impaired	Xiaomi 11 Lite 5G NE	 No vibration customization Relatively simple tree structure, but the extremely large choice of options renders the use of the device more complex.
Deaf	46006	













Assessment	Model	Comments
Hearing-impaired	XIAOMI 11T Pro	 No vibration customization Relatively simple tree structure, but the extremely large choice of options renders the use of the device more complex.
Deaf	0000	













Assessment	Model	Comments
Hearing-impaired	XIAOMI 12	No tactile identification Vibration barely perceptible
Deaf		













Assessment	Model	Comments
Hearing-impaired	XIAOMI 12 Pro	No tactile identificationVibration barely perceptible
Deaf		





	Visual impairment		Hearing impairment		ent	nent	
Models	Visually impaired	Blind	Hard of hearing	Deaf	Motor impairment Mental impairment	Comments	
Maestro 6042	+	+	+	/	+	+	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.

+ 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.

	Vis impair		Hea impair		Motor impairment Mental impairment	nent	
Models	Visually impaired	Blind	Hard of hearing	Deaf		Mental impairr	Comments
Twist 392	+	+	+	1	+		Hands-free function with adjustable volume on the base station. This makes it easier to use the phone's call and answer functions. 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. Need for training or assistance with the programming of extra functions for the blind and visually or mentally impaired. Switch to the "T" position possible, but not very efficient. 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.







- If you want to call, text and surf freely, we recommend our Mobilus subscription from €15/month 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
- 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

Social rate

People with a disability may, under certain conditions, be eligible to benefit from the social rate. www.proximus.be/social







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







Discover our complete offer on www.proximus.be/handicap

Do you have questions/comments about this catalog? You can send them to

CSR@proximus.com



