

General Specifications

What are the Dimensions and weight of the Orbit Reader 20?

The dimensions (W x H x D) are 6.6 x 1.4 x 4.4 inch (168 x 35 x 112 mm). It weighs 0.99 lbs (450 grams)

What kind of Braille input keys does the Orbit Reader 20 have?

It has eight high-quality Perkins-style keys and a space bar.

What additional buttons or keys does the Orbit Reader 20 have?

It has a Power on/off button, a cursor pad with four directional buttons and one select button for navigation, and two rocker type panning keys.

What external interface ports are available on the Orbit Reader 20?

It has one Micro-B USB port (USB 2.0) with support for Serial, HID and Mass storage device classes and one SD card slot.

What is the typical battery life of the Orbit Reader 20?

The battery typically lasts 3 days with normal use.

Does the Orbit Reader 20 have internal memory?

The Orbit Reader 20 uses the SD Card for storage of files for reading and editing.

SD CARD AND FILE SYSTEM

Which file system is required for formatting the SD card?

SD cards should be formatted with FAT32 file system only.

What is the capacity of an SD card memory?

The Orbit Reader 20 supports SD cards with memory capacity ranging from 4 to 32 GB.

What is the maximum length allowed for the file name and path?

The maximum length allowed for a file name and path is 255 characters. This means that a user can have files with long file names and short directory path or short file names with longer directory paths.

Does the Orbit Reader 20 offer date and time stamping when a file is created or edited?

When a file is created or edited, the Orbit Reader 20 applies a fixed date and time, i.e. "1-Jan-2017 00:00:00".

How many maximum number of files can be stored in a single directory?

There are no Orbit Reader-specific limitations to the number of files that can be stored in a single directory. However, the file sorting function is limited to the first 250 files found on an SD card.

What are the file formats supported in Local Mode?

The txt, .brl and .brf file formats are supported in Local Mode.

How many maximum number of files can be marked for cut, copy or delete operations?

A maximum of 100 files within the same directory can be marked for cut, copy or delete operations.

Is it possible to perform cut, copy or delete operations on folders?

Cut, copy and delete operations can be performed only on empty folders. If the user attempts to perform these operations on a non-empty folder, then the system generates an error message.

Which encoding formats are used by the Orbit Reader?

Text files are encoded with ANSI, UNICODE-LE16, UNICODE-BE16, UTF8 format only. Other encoding formats are not supported.

How many maximum number of files are shown when "Show Recent Files" command is selected from the menu?

The maximum number of files shown in the recent file list is 20.

What is the error message "SD ERROR XX" that I see on my display?

This error message indicates an internal error with the SD card, such as corrupt memory regions or a damaged card adapter.

READER AND EDITOR

How much of file content can be copied using Cut/Copy block operations?

A maximum of 5KB (approximately 5000 characters) of file content can be copied at a time. If the user attempts to mark data above this limit, then an error message is generated.

What is the maximum limit for setting bookmarks in a file?

The maximum number of bookmarks that can be set in a single file is 100. If a user attempts to set more bookmarks than the allowed limit, then an error message is generated.

Are Menu text formatting options (i.e. word wrap) applicable to the Editor as well?

The Menu text formatting options are applicable for Reader only. The Editor always shows non-formatted characters.

Is it possible to perform Cut/Copy block operations from Reader?

The Cut/Copy block operations can be performed only in Editor. To perform these operations in Reader, the user should first open the current file in Editor and perform the desired operation. Closing the editor will take the user back to the reader.

What happens when the SD card is removed while in the Editor mode?

It is highly recommended not to remove the SD card while editing. Editor applications will shut down and edited data will be lost if the SD card is removed while the Editor is running.

While Editing, when does a file get saved automatically?

A file is automatically saved on exiting the Editor. A file is also automatically saved while editing or navigating 1KB data within the file.

Bluetooth

What happens when a Bluetooth Host sends a pairing request to the Orbit Reader 20 while it is in sleep mode?

Pairing requests are accepted automatically if the pairing method is "Just Works". If the pairing mode is set to "Confirm Code", then the Orbit Reader 20 will not respond.

How many Bluetooth devices can be connected to the Orbit Reader 20?

Four Bluetooth devices can be connected to the Orbit Reader 20. However, only one Bluetooth device will be active at a time. In order to switch between connected devices, first put the current connected host on standby (screen lock the phone) and then wake up the other host from standby (unlock the phone). The host will then connect to the Orbit Reader 20 automatically, provided it was paired already.

Why does my device switchback to Bluetooth connection even when I am trying to put the device in local mode?

The Orbit Reader 20 device puts Bluetooth connection on highest priority. Whenever there is any activity on Bluetooth channel, the display is taken over by messages from the Bluetooth. If you need to work in local mode, put the Bluetooth device on standby when you are working on mobile or turn off Bluetooth from the preference menu when you are working on a PC or a Laptop.

Can I wake up my mobile from standby using the Orbit Reader 20 keys?

The Orbit Reader 20 keys cannot be used to wake up a mobile from standby, but can be used to enter a password to unlock the screen for iPhones.

Android phones with Google's BrailleBack does not support this functionality.

When my phone is on stand-by and receives notifications, will Orbit Reader 20 show the notifications on its display?

This depends on the screen reader application running on your mobile phone. Our observations are as follows:

For iPhones, no messages are shown for incoming calls. For message notifications, it does connect on receiving a notification, but the contents are not displayed. The display shows contents of the screen which is usually the clock.

For Android phones, on receiving a call, the device displays contents of the screen. The exact content may vary depending on the make of the mobile phone. The device may or may not display the number for an incoming call. The device does not display anything for incoming message notifications.

Why am I unable to see my device listed in the IOS Bluetooth menu option "Near By Devices"?

Note that iOS is paired through settings->General->Accessibility->VoiceOver->Braille->Choose A Braille Display and not through Settings->Bluetooth->Devices.

REMOTE MODE

Can the Orbit Reader 20 work as 18-cell braille display?

The Orbit Reader 20 works as an 18-cell device when it is emulated as Refreshabaille 18. The last two cells always remain blank.

Can the The Orbit Reader Emulation mode be switched off to resume the 20-cell operation?

The Emulation mode can be changed only when there is no active screen reader connection. If the user attempts to change emulation during an active screen reader connection, the system will give an error message.

What happens when a Bluetooth connection is lost with a host device?

The Orbit Reader 20 resumes connection with previously connected device on being powered on. If the connection was lost when the device was 'on', then the connection needs to be re-established manually. There are some simple ways to do this. They are as follows:

- a. Lock the screen of the phone and unlock.
- b. For Android, go to Settings->Accessibility->Brailleback->Setting and click on the status or turn off the Brailleback and turn it on again.
- c. For ios, go to Settings->General->Accessibility->Voiceover-> Braille and double click on the name of the braille device, or turn off the voice over and turn it on again.
- d. If nothing works, unpair the braille device and pair it back.

What happens when the Emulation mode is changed while the device is already paired with the host?

When the Emulation mode is changed, the "connected device list" does not show that change. However, the current session works fine without any issues. Unpairing the Orbit Reader 20 and pairing it again with the host will show the changed name in the "connected device list".

What happens when the Emulation mode is changed during active screen reader connection?

If the android device is in sleep mode, then there is a chance that it may connect to the Orbit Reader 20 in the wrong emulation mode on waking up. Here, the user can disconnect (forget) the device and pair it again.

The current active connection (USB or Bluetooth) will be reset and re-initialized.

How can I know whether the screen reader application I am using is supported by Orbit Reader 20 or not?

Refer to the table below for details

#	Connection mode	Supported Channels	Screen Reader Latest Version verified
NVDA			
1	Orbit Reader 20	USB HID/Bluetooth	2017.2
2	Refreshabraille18 Emulation	Bluetooth	2017.2 or earlier
JAWS			
1	Refreshabraille18 Emulation	USB HID/ Bluetooth	18.0.2945
Window-Eyes			
1	Orbit Reader 20	USB HID/USB Serial/Bluetooth	Not released yet
2	Refreshabraille18 Emulation	USB Serial/Bluetooth	9.5.1.0 and earlier
System Access			
1	Orbit Reader 20	USB HID	3.7.88
2	Refreshabraille18 Emulation	USB HID/	3.6.136
Voiceover (Mac)			
1	Orbit Reader 20	USB HID/Bluetooth	Mac OS-10.12.1 sierra
2	Refresh braille Emulation	Bluetooth	MacOS 9 and earlier
Voiceover (iOS)			
1	Orbit Reader 20	Bluetooth	iOS10.3.2
2	Refreshabraille18 Emulation	Bluetooth	iOS9 and earlier
BrailleBack			

	1	Refreshbraille18 Emulation	Bluetooth	0.95.1-Prod or earlier
Windows Narrator				
	1	Refreshbraille18 Emulation	USB Serial/Bluetooth	Windows10

I typed a character while connected to IOS on the home screen and now I see a box with all 8 dots up in the first and 20th cell. What does this mean?

You might have enabled a status cell on the right-hand side. You can turn it off in Braille settings.

Are there any known issues/limitations while working with Android?

The following issues have been noted while working with Android-

- a. Automatic switching does not happen while working with Android Devices. The Orbit Reader 20 has a feature wherein, if USB and Bluetooth both are active at the same time, Bluetooth takes over the connection and in the event of the phone being locked, the mode is switched to active USB mode automatically. This automatic switching does not happen for Android devices.
- b. When you type text messages on the Android device, corresponding text does not get displayed on the device.
- c. It is not possible to enter the 'screen unlock' password of the phone from the Braille keypad of the device.

Firmware Upgrade Application

What needs to be done if error messages “Mfc100.dll not installed” or “Msvcr100.dll is missing” are displayed when an update utility is run?

If you are using firmware upgrade utility version v00.00.12 or an earlier version, Install VC++ redistributable from [here](#) and run it again.

For Utility version v001.00.13 and onwards, these dll files are merged with the main application and no installations are required.

Localization

Can I change the Orbit Reader 20 default language?

Yes. The default language can be changed through device localization. Please see the Language Options (Localization) section of the user manual for details.

Are loc and lan files required to be loaded in a particular order?

Loading loc file before lan file can cause garbage display. It is recommended that you load lan file first, and then load the loc file.

Is back translation supported in the Editor?

Back translation is supported if one braille symbol indicates one/multiple ASCII or Unicode value. A character which represents multiple braille values is not supported. Multiple occurrence of a single Braille value within the table is also not supported.

What is the maximum length of a system message that the Orbit Reader 20 supports?

The maximum length of a system message that the Orbit Reader 20 supports is 20 characters. Characters beyond the 20th character are chopped off automatically by the Orbit Reader 20 system software while loading localization.

How can I find out if someone has already created localization files for my language? Can I submit my localization files to share with others?

We post localization files that we receive on our website [here](#).

We encourage you to share your localization files with others. You can send us your files via email at techsupport@orbitresearch.com

OTHERS

What is single line edit box and what are its limitations?

Single line edit box is the editor prompt you get while performing operations such as "rename". Cut/Copy operations cannot be performed on single line edit box.

Can Orbit Reader 20 be put into light sleep mode?

Orbit Reader 20 can be put into light sleep mode only when the device is in Stand-Alone mode.

Is it possible to rename a file with a name having a mixed set of Unicode and ASCII characters?

It is not possible to rename a file with a name having mixed characters from Unicode and ASCII.

Does the Orbit Reader 20 support grade 1, grade 2 and grade 3?

At this moment, Orbit Reader 20 supports grade 1 only.

Does Orbit Reader 20 support Unified English Braille (UEB)?

If you are working with screen reader applications in remote mode, it depends on the application you are using. Being a terminal display device, Orbit Reader 20 displays anything being sent by the host application as it is. In local mode, the Orbit Reader 20 supports only computer braille code.

How do I transfer files to and from the Orbit Reader 20?

The user may invoke mass storage mode for file transfers. Hot key for mass storage mode is Space + Dot 7 + Dot 5.

How to report a software bug?

You can email us the details at techsupport@orbitresearch.com. Additionally, you can post your query on our forums available on our website [here](#).

How can I obtain Technical Support?

For technical support, you may contact your local distributor of OR 20. You can email the details at techsupport@orbitresearch.com.

Additionally, you can post your queries on our forums available on our website [here](#)