

SNOW 12

12" Video Magnifier



User's Guide

V1.1

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If you still have Snow 12 related questions, please send them by email to support@zoomax.com.

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1. Introduction

1.1 About your Snow 12

Please read this user's guide carefully. This guide will help you to better understand the features of Snow 12.

NOTE:

There are TWO versions of Snow 12: unit WITHOUT text-to-speech version and unit WITH text-to-speech version. You will find the  in the upper-right corner of the package of the unit indicating the version.

1.2 About this User's guide

We constantly seek to improve our products. Therefore, it is possible that this guide is not the latest version available. You can download the latest user's guide in the Support section at www.zoomax.com

2. Safety and maintenance

To maintain Snow 12 in optimal condition:

- To avoid risk of fire, do not expose Snow 12 to excessive heat or direct sunlight.
- To avoid the risk of electrical damage, keep Snow 12 away from fluids and chemicals.
- To avoid the risk of electrical shock, do not attempt to disassemble the unit. Please refer service requests to Zoomax or an authorized repair facility.
- Always unplug the Snow 12 before cleaning. Use a cleaning cloth or a soft damp cloth to clean the exterior. Do not use cleaning agents or abrasive material, as they will damage your video magnifier.
- The use of a screen protector might influence the functioning of the touch screen.
- Use the Snow 12 in environments where the temperature is between 10°C and 40°C (50°F and 104°F).

3. Get to know the Snow 12

3.1 What's in the box

You will find the following items inside the Snow 12 package box:

- Snow 12
- Foldable Stand
- Carrying case
- Sleeve case bag
- User's guide
- Quick guide card
- Power adapter
- USB cable
- HDMI cable
- Cleaning cloth

If any items are missing, please contact your distributor.

3.2 General description

The Foldable Stand is a standard accessory for Snow 12.

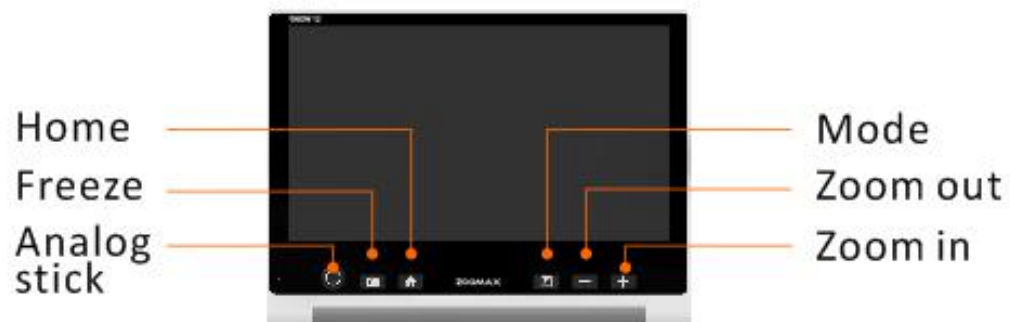
Snow 12 can be used alone or with the Foldable Stand for a bigger writing space.



(A) Snow 12



(B) Snow 12 with Foldable Stand



3.3 Charge the battery

- The battery **MUST** be fully charged before **FIRST** use of your Snow 12.
- To charge the battery, simply plug the supplied power adapter into an available power outlet and connect to your device. Please note that the power indicator is **RED** while the device is charging.
- When the battery is fully charged, the power indicator will turn green. When the battery is out of power, it will take approximately 2 hours to fully charge the battery.
- You can use the Snow 12 for 2.5 to 3 hours of continuous use. When the battery is low, the low battery icon  will show in the lower left corner. Please recharge the battery in case the device turns off unexpectedly.

3.4 Power indicator status

RED: The indicator lights red when the unit is charging a battery regardless of whether the unit is on or off.

GREEN: When the battery is not being charged, or fully charged when the device is connected to the power adapter, the indicator is green.

INDICATOR OFF: The indicator is automatically off when the unit is off without connecting to any power source.

4. Basic operation

4.1 Introduction

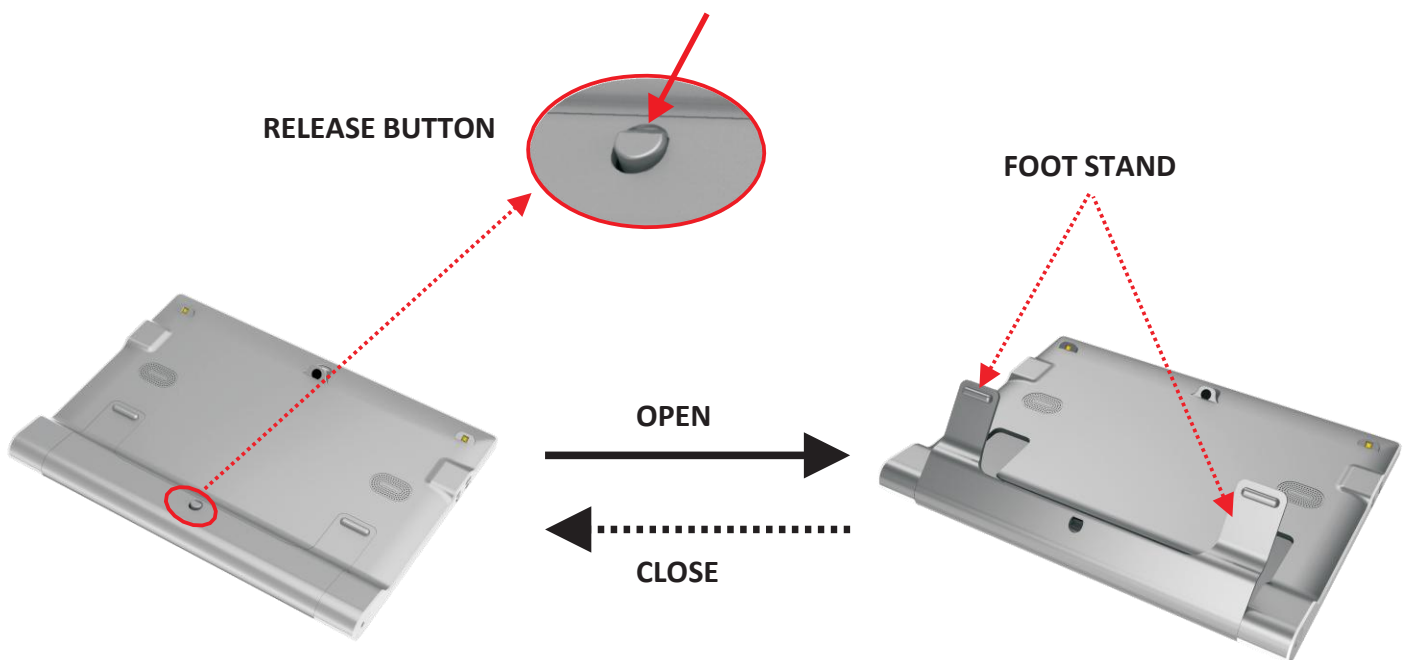
NOTE:

All the basic operations are available in both versions of Snow 12 (with or without text-to-speech). These operations can be performed only when the text-to-speech mode is off.

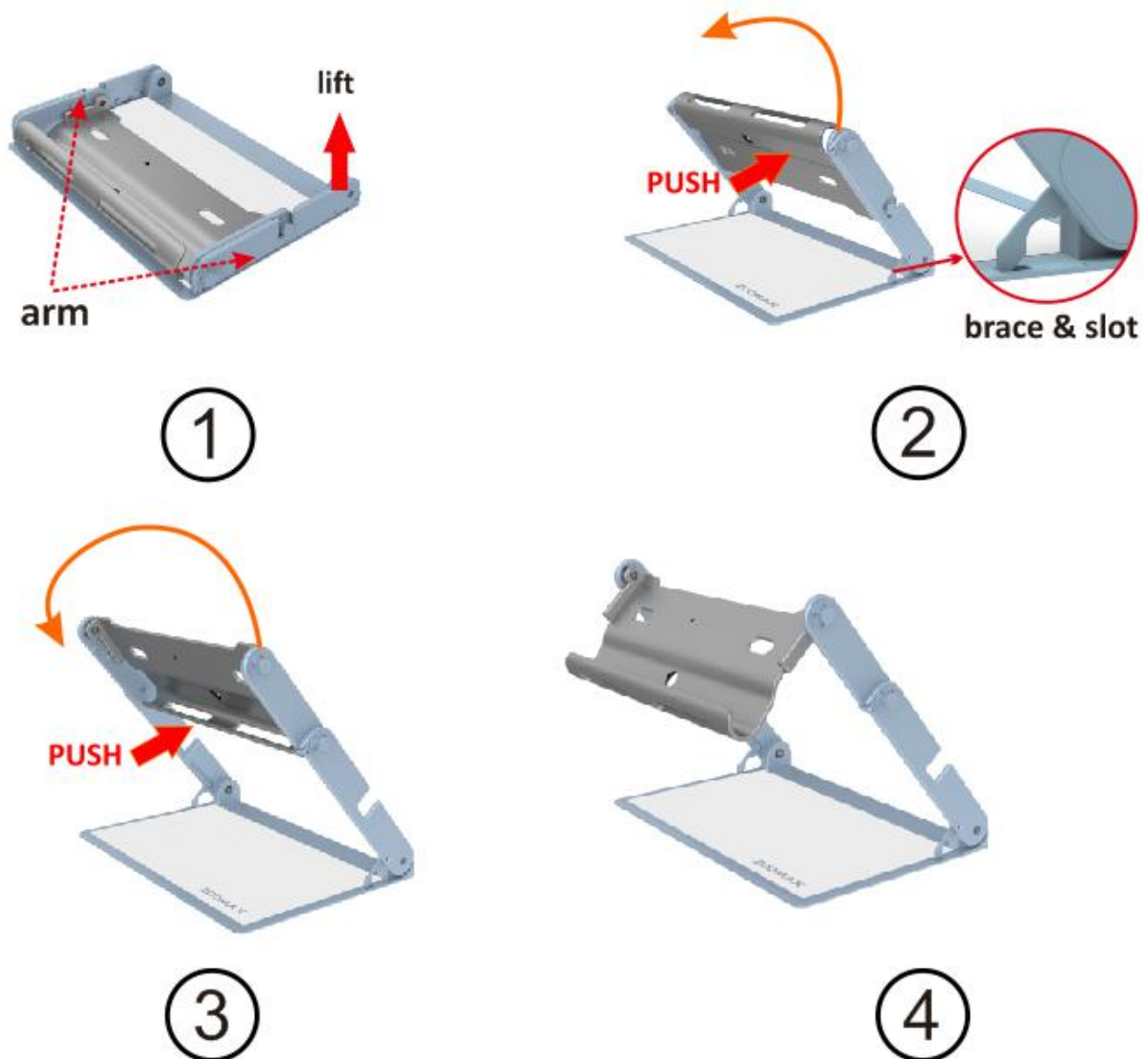
How to open/close the foot stand of Snow 12

Push the “**RELEASE BUTTON**” on the bottom of the back cover to open the foot stand.

Push both sides of the “**FOOT STAND**” to close.



How to open the Foldable Stand



STEP 1

Lift the arm up to get the braces into the slot.

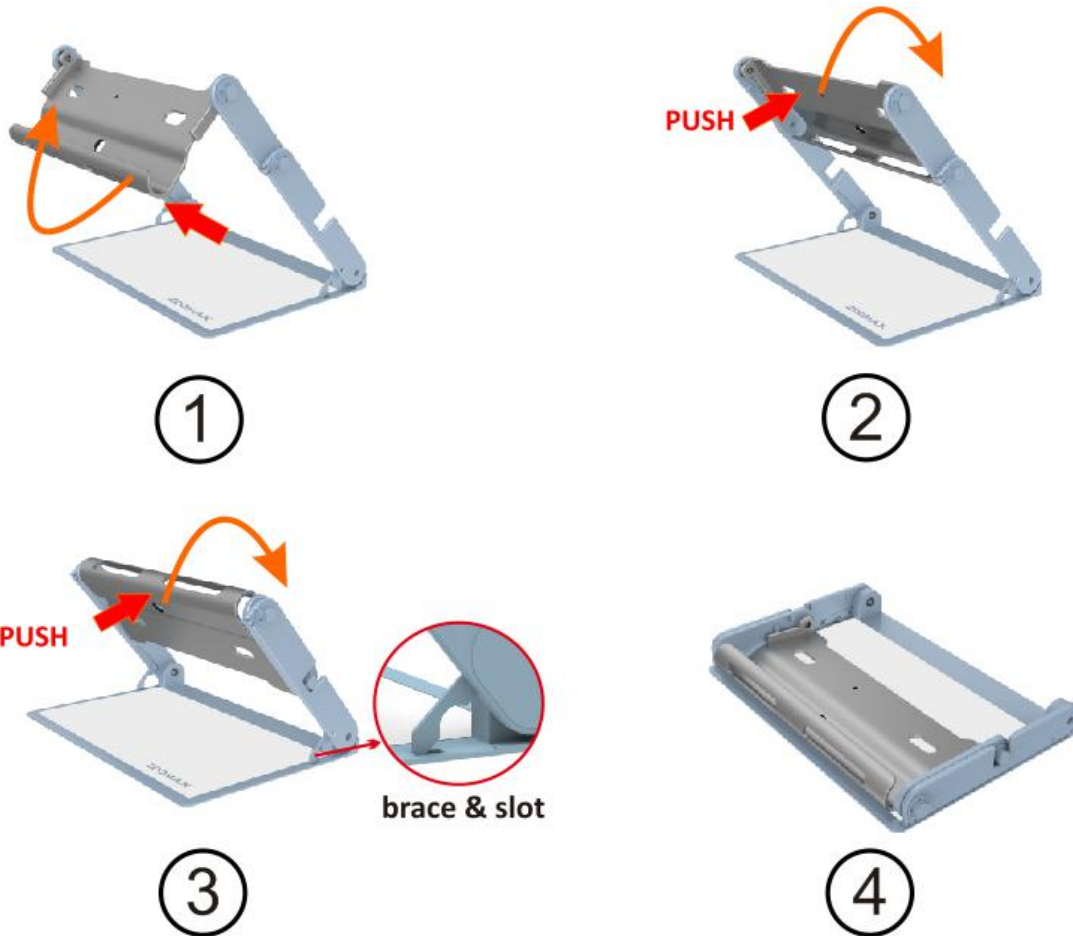
STEP 2

Push and rotate the tray upward.

STEP 3

Push and rotate the tray upward again.

How to close the Foldable Stand



Please remove Snow 12 from the Foldable Stand before closing the Stand.

STEP 1

Push and rotate the tray back until it stops between the arms.

STEP 2

Push and rotate the tray back again until both ends of the arm go into the slots in the middle of the arms.

STEP 3

Lift the braces up out of slots.

STEP 4

Put the folded stand flat.

4.2 Power On/Off

Press and hold the Power button for 3 seconds and the Power Indicator will turn green.

A few seconds later the real-time image will display on the screen.

Please note that Snow 12 runs ANDROID operating system, which may take a little longer to boot up. Standby mode can reduce this time. Please refer to section 4.3 “Standby mode”.

To turn off your Snow 12, press and hold Power button for a few seconds until the power indicator turns off.

4.3 Standby mode

Standby mode will switch the screen off yet keep the unit on. It is designed for power saving and easy-use purposes. The device will enter Standby mode when:

- Snow 12 is not used for 3 minutes
- the Power button is short pressed.

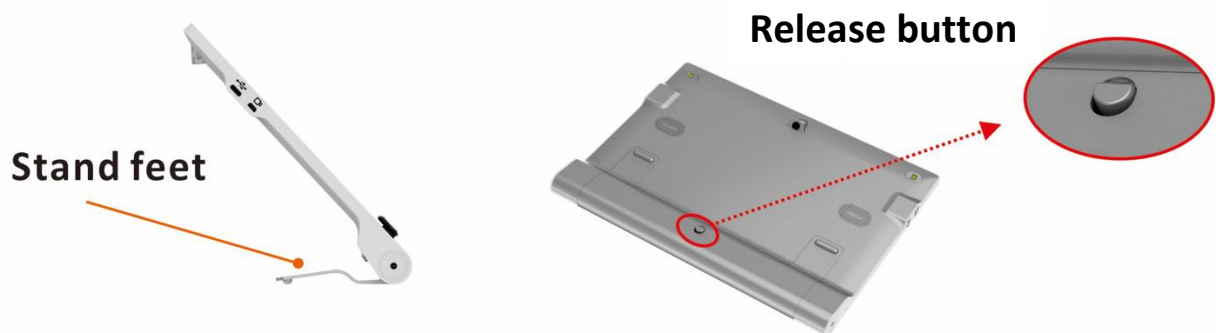
In Standby mode, the unit will shut down automatically after 30 minutes of inactivity.

Exit Standby mode: short press the Power button again to exit.

4.4 Near/Distance-view

Open or close the foot stand to switch between near-view and distance-view mode.

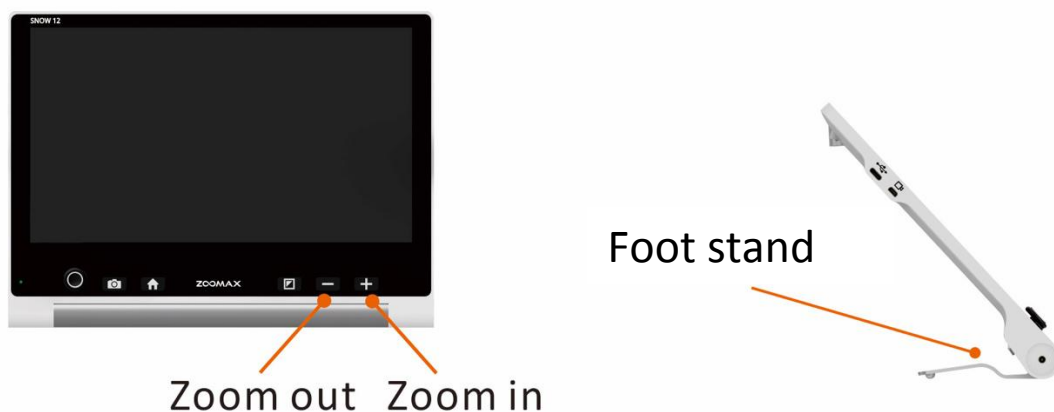
Push the Release button on the lower cover to open the foot stand.



Open the foot stand to switch to near-view mode. The LED lights will turn on.

Close the foot stand to change to distance-view mode. In distance-view mode, you can tap the screen to focus if the camera doesn't focus well in the first few seconds.

4.5 Zoom control



- Press the “+” button to zoom in and press the “-” button to zoom out.
- When the foot stand is open and the reading material is placed flatly beneath, the magnification range is 2.7X to 19X (2.5X to 19X on foldable stand).
- Connecting to a TV or monitor will increase the overall magnification. Please refer to section 5.3.

4.6 Move image with analog stick

Push the analog stick up/down/left/right to move the real-time image in high magnification.

Push the analog stick up/down/left/right twice quickly to move the view to the display edge.

4.7 Select color mode

Press the Mode button to switch the display between full color mode and 10 high contrast colors. The default color mode is full color mode. The Snow 12 color options are listed below:

- Full color
- White text on black background
- Black text on white background
- White text on blue background
- Blue text on white background

- Yellow text on black background
- Black text on yellow background
- Green text on black background
- Black text on green background
- Yellow text on blue background
- Blue text on yellow background

Switch to full color mode quickly

Press the Mode button for 1 second in high contrast color mode to quickly switch to full color mode.

Favorite color mode

You can choose your favorite color mode in Setting menu. Please refer to section 5.1.5.

4.8 Freeze and save function

Auto focus / Tap to focus

By default, the camera is auto focus.

You can also tap the screen to focus on the object you want to view. After switching between different viewing modes (for example, near and distance viewing mode switch), tap the screen to focus.

Freeze image

Place your Snow 12 over the viewed material.

Short press the Freeze button to freeze a real-time image. There will be an onscreen button “” in the lower right corner. Tap this button to unfold the button bar shown as below.



Fold the button bar

Tap the Fold icon  to fold the button bar.

Save frozen image

Tap the Save icon  to save frozen image to gallery.

Enter/exit gallery

Tap the Gallery icon  to enter gallery. Tap the Return icon  or press Freeze button to go back.

Please refer to section 5.1.3 for more information.

View frozen image

The image can be zoomed in/out and color mode can be changed.

When magnified, you can move around the image by panning on the touch screen or moving the analog stick.

Press the Freeze button to return to real-time viewing mode.

You can also tap the Return icon  to revert.

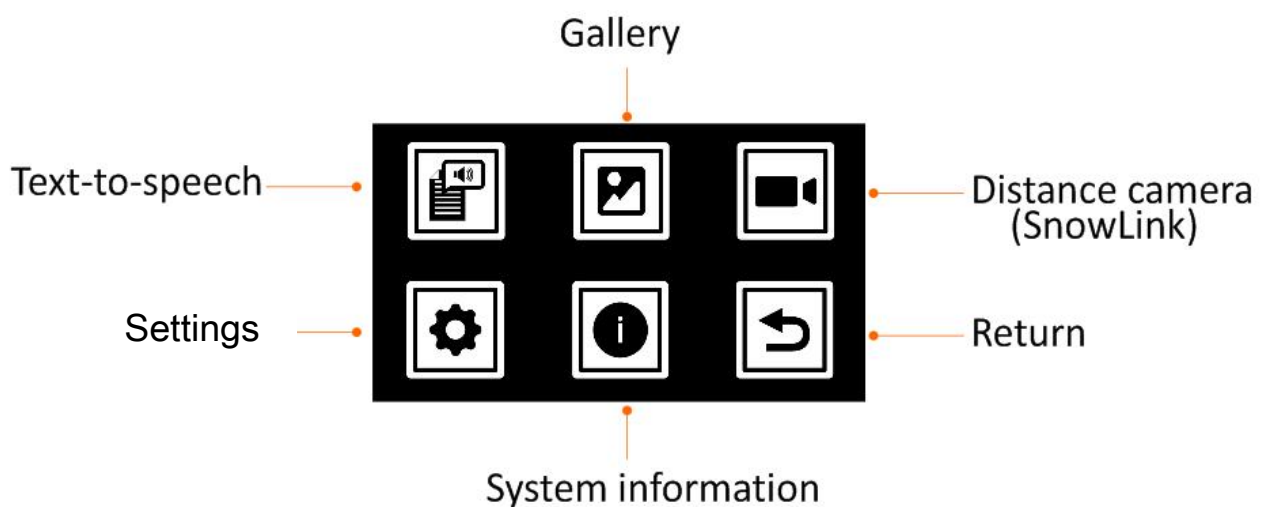
5. Advanced operation

5.1 Main menu

5.1.1 Enter/exit main menu

Enter the main menu

In the real-time viewing mode, short press Home button to activate the main menu as illustrated below.



There are six options to choose from in the Main Menu: Text-to-Speech, Gallery, Distance camera (SnowLink), Settings, System information, and Return.

How to Select an Option in the Menu

Within the main menu or other menus, there are two options for selecting any of the choices. If the Touch function is activated, you can just tap the icon you want. Otherwise, move the analog stick up/down/left/right to cycle through the icons. When you get to the one you want, press the Mode button to select.

Exit the main menu

Press the Home button or use the Return icon to exit the main menu.

5.1.2 Text-to-speech

Please refer to chapter 6.

5.1.3 Enter gallery

After choosing Gallery icon , select Photo or PDF icon to enter the gallery. Please note that there will be a third icon TXT/RTF if you enter the gallery in text-to-speech mode.

Press Freeze button or use the Return icon  to exit gallery.

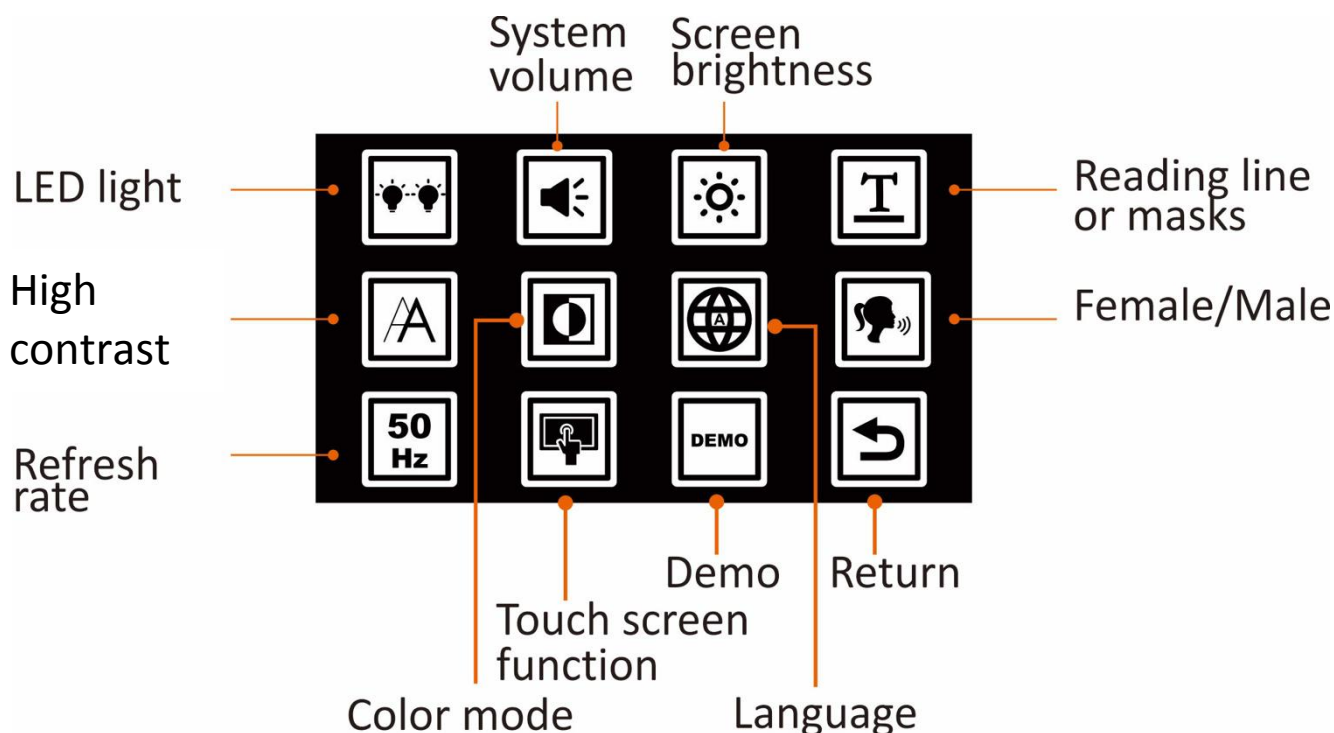
5.1.4 Distance camera (SnowLink)

Snow 12 can be connected to an optional distance camera (SnowLink) through the HDMI-in port on the left side of the device. Please contact your distributor or Zoomax for more information.



5.1.5 Settings menu

The Settings menu can be accessed via the Main Menu.



LED Lights On/Off

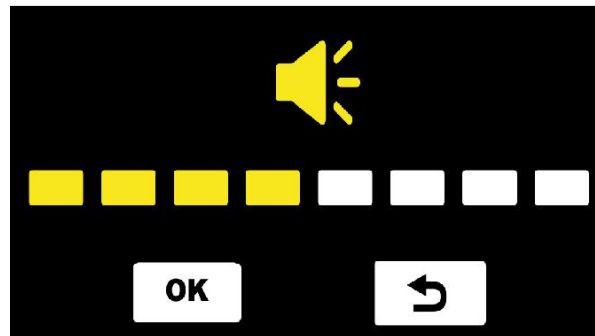
Choose this option to switch LED lights on and off. There are four choices: left-on & right-on, left-on & right-off, left-off & right-on, left-off & right-off. Select or tap the preferred icon to make your choice.

By default, both LED lights are turned on in near-view mode and turned off in distance view mode and when using the Text-to-speech function.

System Volume

Choose this option to adjust the volume. Push the analog stick left or right or press zoom in/out buttons to change the volume up and down, and then press the Mode button.

You can also tap the rectangle box to set the volume.

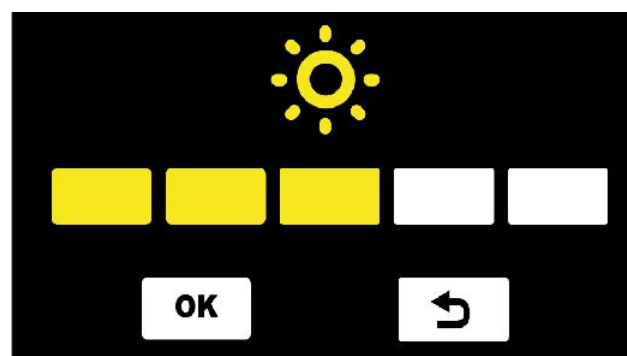


Tap the “**OK**” or Mode button to confirm, or “↶” or Freeze button to exit without making a change. There are 8 volume levels in total. Default volume level is medium volume.

Screen Brightness

Use this option to adjust the brightness of the screen.

Push the analog stick left or right or press zoom in/out buttons to
move the selection left and right, and then press the Mode
button.



Tap the “**OK**” or Mode button to confirm. Press “↶” or Freeze button to exit. There are 5 brightness levels in total. Default brightness level is medium brightness.

Reading Line or Masks

It's possible to toggle through the various Lines and Masks options by simultaneously pressing Zoom In and Zoom Out buttons.

Adjustment of the reading line position or the width of reading masks can be made within the Reading Line or Masks option found in the Settings menu.

- Push the analog stick right or left to move through the available options for reading lines and masks.
- Push the analog stick up or down to adjust the position of reading line or the width between reading masks.
- You can also tap the icon to choose the reading line and masks style and move the position of line or the masks by touching the screen.

Tap the “**OK**” or Mode button to confirm. Tap “” or press the Freeze button to exit.

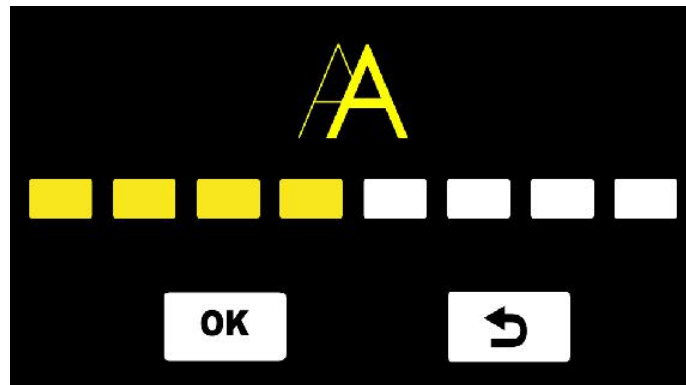
High Contrast

The crispness of text in high contrast color mode can be affected by the lighting conditions around you, and by the reading material itself.

It's possible to adjust contrast up or down by pressing and holding the Mode button, along with Zoom in or Zoom out button. Doing so results in fonts becoming thicker or thinner.

If adjusting within the menu, push the analog stick up/down to change the intensity of contrast or press the zoom in/out button to adjust.

Tap the “**OK**” or Mode button to confirm. Press “↶” or Freeze button to exit.



Select Favorite Color Mode

There are 10 high contrast color modes to choose from. All choices are available by default. You can hide combinations you do not like or need, this reducing the number of choices you see when pressing the Mode button under normal use situations.

Push the analog stick right/left/up/down to move between the available colors. Press the Mode button to select or deselect a specific color mode. You can also tap the Color mode icons to select or deselect the color mode. A line through an icon means it is hidden.

Tap the “**OK**” or Mode button to confirm. Press “↶” or Freeze button to exit.

Language

The default language is Auto. This means system prompts and messages are spoken in English. In Text-to-Speech mode, the language of written text will be automatically detected.

If you select another language, all system prompts and messages will be spoken in that language. For example, if you select 'Español' (Spanish) or Français (French), Snow 12 will speak in those languages unless or until you switch it back to Auto or one of the English language choices.

To change the language, push the analog stick up and down and confirm your choice by pressing Mode button. Alternatively, just swipe up and down with your finger and tap the language you want when you hear it.

Female/Male

For most languages you can choose between a Female or Male voice. To make the change, either tap the Female/Male button or press the Mode button to toggle. The default voice is female.

NOTE:

The existing languages shown as below only have FEMALE voice: English (IND) / Français (CA) / Norsk / Limba română / Türk dili / Svenska.

Refresh rate: 50/60Hz

To change the refresh rate, highlight the Hz button (it will display either 50 Hz or 60 Hz) and press Mode button or tap it to toggle between the options. The default value is 60 Hz.

Touch screen function on/off

The Touch Screen function is on by default.

To switch it off, tap the Touch Screen function icon or press the Mode button. To switch it on again, press the Mode button.

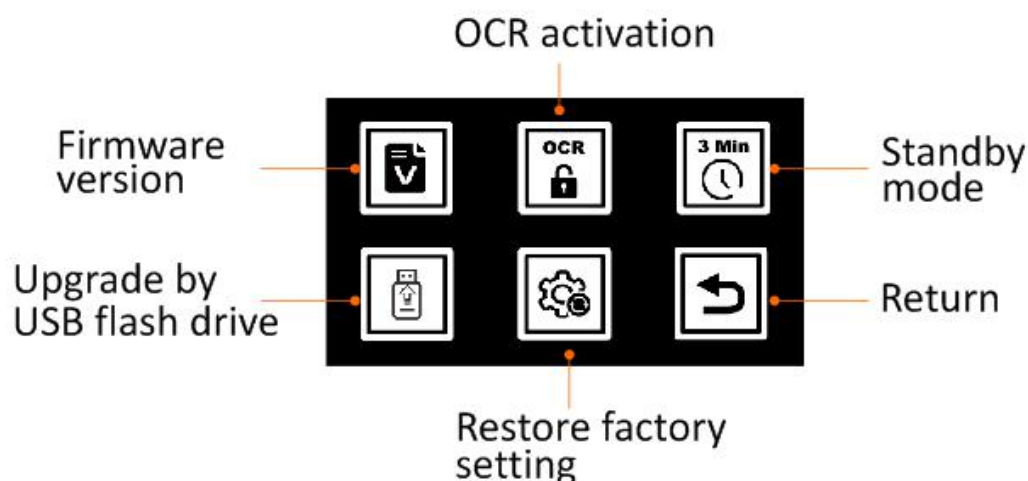
Demo mode

This function is designed for distributor use in an exhibition environment.

When activated, a video automatically demonstrates the main functions of Snow 12. Press the freeze button or tap the return icon on top left of screen, to return to the main menu, or, press Home Button to directly exit menu and return to live image.

5.1.6 System information

Most of the functions in the System Information menu are for use by a Zoomax distributor or service technician.



Firmware Version

This option confirms the software version of Snow 12. Use only when directed to do so by a Zoomax distributor or service technician.

Activate OCR and text-to-speech function

If you purchased Snow 12 without OCR and text-to-speech function and you want to upgrade to OCR version, please contact your distributor or Zoomax.

Note for distributor:

You will first need to obtain a QR activation code from website: <http://zoomaxupgrade.com>. Once received, choose the Activate OCR function icon on Snow 12 to scan it.

3-minute Automatic Standby Mode On/Off

By default, Snow 12 will switch off after 3 minutes of inactivity. It does this to help conserve battery power.

When this mode is off, Snow 12 will never enter Standby Mode unless you short press the power button.

To toggle on/off, either tap the  icon or press the Mode button.

Firmware upgrade via USB flash drive

For distributor use only.

Restore factory setting

When selected, Snow 12 will be restored to factory settings and

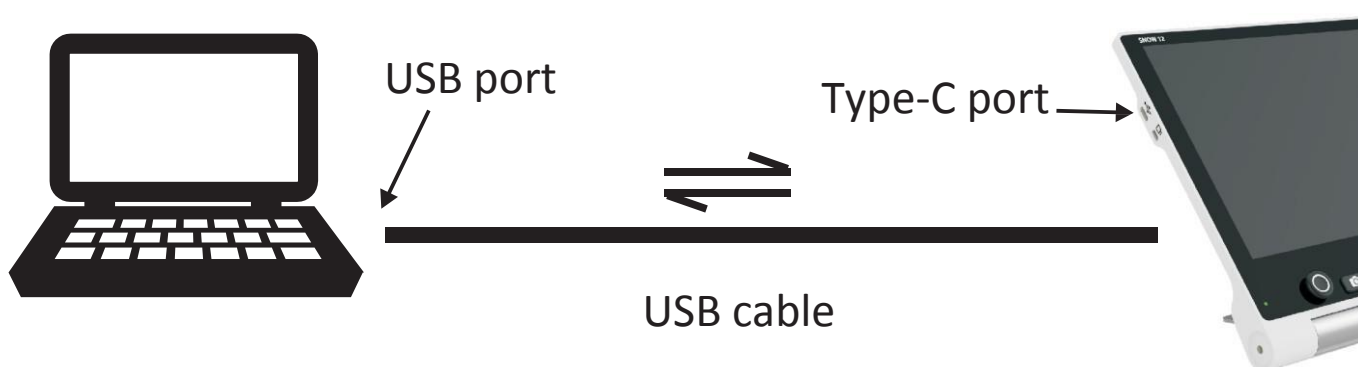
any saved photos will be deleted.

A warning message will ask if you wish to delete all photos. Selecting ok will delete all photos and restore Snow 12 to factory settings. Selecting return icon will not delete photos and the factory restore will be canceled.

5.2 Transfer files with computers

Files stored in Snow 12 can be transferred to your Windows® computer through the supplied USB cable. Files on the computer can also be transferred to Snow 12.

1. Make sure your Snow 12 and your computer are turned on.
2. Connect the computer and Snow 12 with the supplied USB cable. Plug the USB Type-C (the small end) to the Type-C port of your Snow 12, and plug USB 3.0 (the large end) to the USB port of your computer.



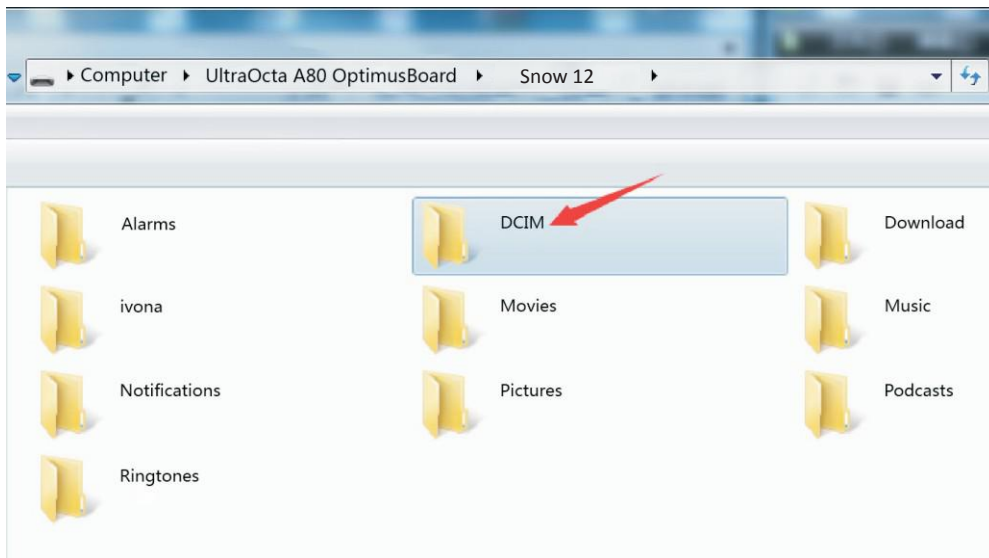
NOTE:

The Snow 12 can only be connected to the Windows® computers at this time. Support for Mac™ computer support is in development.

3. When Snow 12 is connected,
 - Snow 12 appears as an external device.
 - Double-click the folder named “Snow 12” to enter it.

4. To transfer files:

Several subfolders are in the folder “Snow 12” (shown as the figure below). Open folder “DCIM”, and you will see Photo folder, PDF folder, TXT/RTF folder and Photo (OCR) folder.



Select the corresponding folder, and then select the file you want to transfer. You can either copy or cut the chosen file and transfer it from Snow 12 to your computer or vice-versa.

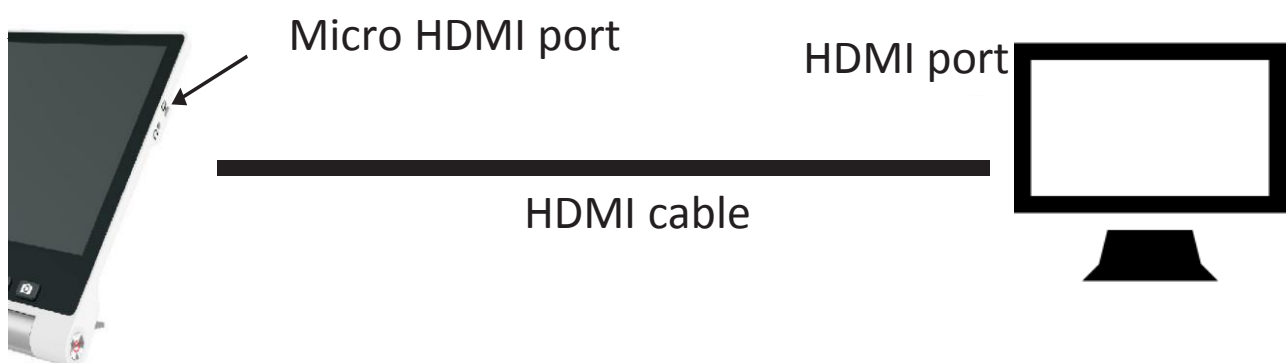
NOTE:

- Images stored in Photo folder can only be viewed when not in text-to-speech mode.
- Images stored in Photo (OCR) and TXT/RTF folder can be viewed only in OCR and text-to-speech mode.
- Please do not modify the folder name, otherwise Snow 12 cannot find images transferred from computer or the images stored before.

5.3 Connect to TV or monitor

To view images on a larger screen, use the supplied HDMI cable to connect Snow 12 to an HDMI TV or monitor. Connect the micro-HDMI end of the cable to port located on the right side of Snow 12. Connect the standard HDMI end to an available HDMI port on your TV or monitor.

For most TVs it will be necessary to change the input source to view the image from Snow 12.



Once connected, the image from Snow 12 will be shown on both your TV or monitor, and on Snow 12. After 30-seconds of inactivity the screen of Snow 12 will go into standby mode. Tap the Snow 12 screen to switch it back on.

NOTE:

Your Snow 12 can also be connected to TV or monitor that are not equipped with HDMI port. Please contact your local Zoomax distributor for more information about available converters.

6. OCR and text-to-speech function

NOTE:

There is an icon  ☒ YES ☐ NO in the upper-right corner of the packing symbolizing the Snow 12 inside the package has text-to-speech function.

If you purchase Snow 12 without text-to-speech function, you will have a free access to the text-to-speech functionality for 30 times. If you like what you see and wish to upgrade, please contact your Zoomax distributor.

6.1 Enter/Exit text-to-speech function

You can enter and exit the Text-to-Speech mode with a long press (3-seconds) of the Freeze button. You can also exit Text-to-Speech mode by tapping the  icon in the lower right corner of the screen.

Zoom control in text-to-speech function

NOTE:

- In text-to-speech mode, the magnification and color mode cannot be changed until after OCR (text recognition) is activated.
- Full-page OCR can be achieved when Snow 12 is used on the Foldable Stand.

6.2 Get started

While in Text-to-Speech mode:

1. Place the document flat underneath the Snow 12.
2. Tap the screen to focus, if necessary.
3. Short press the Freeze button to capture the document.

Freeze button



4. Recognition of text will begin.
5. A few seconds later, Snow 12 will start to read scanned text as words are highlighted.

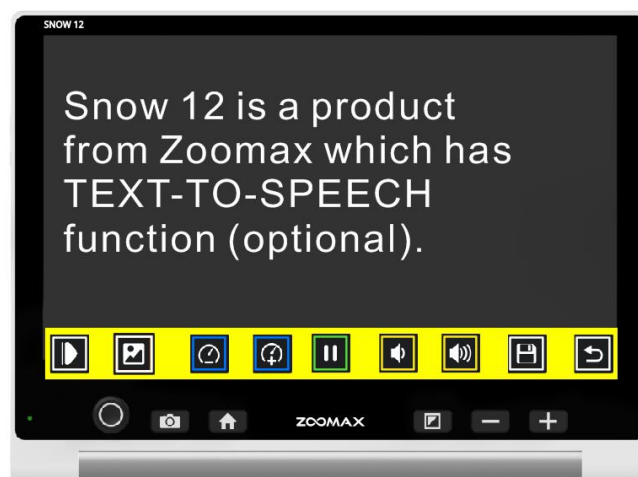
NOTE:

- LED lights are off by default in Text-to-Speech mode to minimize the impact of reflection when reading glossy materials.

➤ NOTE:

By default, automatic language detection is enabled except these four languages: Limba română / Magyar / 日本語 / 中文. For these four languages, please preset the language in the setting menu before starting the text-to-speech reading. More information is available in chapter 6.4. Otherwise the function can't be performed properly and the result may be garbled text or “ ⓘ ”.

6.2.1 Text user interface



Zoom control in text view

During reading, press the Zoom In or Zoom Out buttons to change the magnification level.

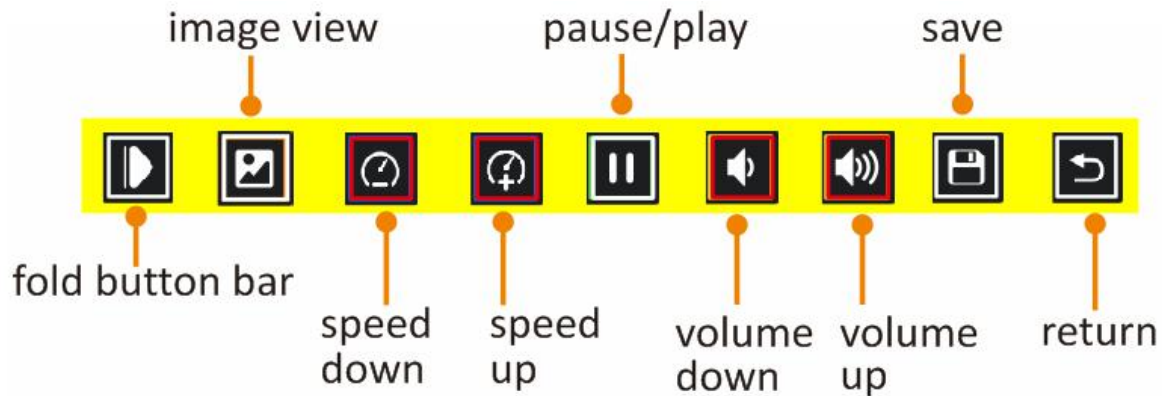
Tap the word to read from it

Tap any word and Snow 12 will start reading from that position.

The button bar

The button bar is a series of on-screen buttons that let you switch from Text to Image view, adjust reading speed and volume, start/stop reading, and save the image.

Press the  button to switch to Image View. Press the  button to return to Text View.



- Tap   to adjust the reading speed. Tap   to adjust the volume of speech.
- Tap  to pause speech. Tap  to play the speech.
- Tap  to fold button bar and this icon will switch to . Tap  to unfold the button bar.
- Tap  to switch to image user interface (refer to chapter 6.2.1).
- Tap  to save the photo.

Save the document

To save the document on the text user interface, tap the Save icon on the button bar. You need to choose which format you want to save between TXT and RTF.

Tap the TXT or RTF icon to confirm if the touch screen function is on, otherwise move the analog stick left/right to choose TXT or RTF, and then press the Mode button to confirm, or Freeze button to return.

Text color

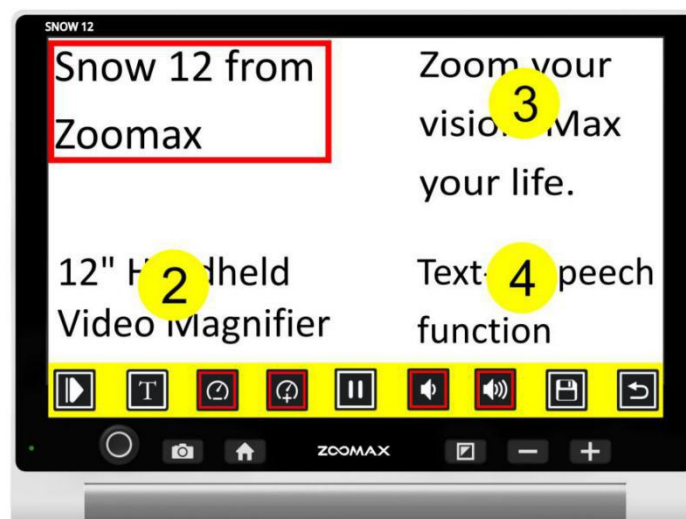
During reading, you can press the Mode button to change high contrast color mode. There are 4 color modes:

- White text on black background

- Black text on white background
- Yellow text on black background
- Black text on yellow background

By default, the contrast color mode is white text on black background mode.

6.2.2 Image user interface



The button bar

Use button bar to start or pause the speech, adjust the reading speed or volume, switch to text user interface and fold/unfold the button bar. Please refer to page 30 for operation on button bar.

Read saved documents in gallery

To access previously saved documents to read in Text-to-Speech mode:

- Press Home button to enter main menu.
- Select the Gallery icon
- There are three icons: Photo, PDF and TXT/RTF icons.
 - To open images, select Photo icon to see the list of saved

pictures.

- To open PDF files, select PDF icon to see the list of PDF files.
- To open TXT or RTF files, select TXT/RTF button to see the list of saved files.
-

Swipe on the screen to browse through the documents index if the touch screen function is on. Otherwise move the analog stick right/left browse.

Tap the document on the screen or press the Mode button to confirm. A play button icon will appear in the center of the screen. Tap it to make Snow 12 read any available text.

Delete saved documents

To delete a saved document, tap the Delete icon on the button bar.

The screen will display a trash icon indicating the document has been deleted successfully.

NOTE:

- PDF files can be read in 4 high contrast color modes installed in text to speech function.
- PDF files can be zoomed in and out.
- PDF files may contain more than 1 page of content. There will be an icon in the upper-right corner indicating the current page and the total page. For example, 1/7 means you are viewing the first page of a PDF file with 7 pages in total.
- To turn the pages, flip on the screen with one finger when the file is not zoomed in. The number of the icon will change if the page changes too.

NOTE:

- OCR (Optical Character Recognition) is best suited to reading normal sized print in a single column.
- Text that is extremely small or page layouts that are extremely complex or feature tables and charts may produce undesirable results.
- Full-page scanning is best performed while using Snow 12 with the folding stand.

7. Troubleshooting

Problems	Solutions
Black screen	- Ensure that the power is on and not in standby mode. - Charge the battery. - Decrease the magnification level.
The image on the screen is dark or distorted.	- Ensure the unit is placed flat on the viewed material. - Ensure the LED lights are on - Check screen brightness level
Smudges or blemishes on the screen.	- Clean camera and screen with soft cloth.
The unit is connected to a TV, but no image appears on the TV screen.	- Ensure the TV is on. - Ensure that Input Source on TV is set correctly - Make sure the HDMI cable is connected correctly to TV.
Failure with text-to-speech, or “Not found” appears on the screen	- Don’t move the unit or reading material during the document scanning.

Wrong language setting	- Ensure the language setting of text-to-speech is the same as the language on the reading material.
Any other problem not mentioned in this guide?	- Press Power button and Zoom In “+” button simultaneously to force a system restart. - If all else fails, please contact your local Zoomax distributor or Zoomax support for assistance.

8. Technical specification

- Magnification:
 - 2.7X - 19X (near-view)
 - 2.5X - 19X (on Foldable Stand)
- Color modes: Full color and 10 high contrast color modes
- Screen: 12-inch touch screen; screen resolution: 1920*1080p
- Camera: Auto focus/tap to focus; 13M pixels
- Dimensions:
 - 29*22*2.4 cm (12*9*1 in) — Snow 12
 - 35*23*4 cm (14*9*1.6 in) — Foldable Stand folded
- Weight:
 - Snow 12: 960g (2.1lbs) Foldable Stand: 1230g (2.7lb)
- Continuous use: approximately 2.5 to 3 hours (relevant to LED lights on/off and brightness and the frequency of photo scanning)

- Charging time: 2 hours
- Power adapter: Input: 100-240V; Output: 15V/4A
- Storage capacity: approximately 1.5GB. For instance, if the images are stored in non-text-to-speech only, it can store up to 1000 images. If the images are stored in text-to-speech function only, it can store up to 200 images.

9. Other Products from ZOOMAX

Check out our full line of handheld magnifiers, desktop magnifiers, and wearable devices by visiting www.Zoomax.com.

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