

Mercury User's Manual

By Pamtrad 2016

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Mercury manual

Congratulations on the purchase of your Mercury magnification/ (OCR) text-to-speech system. Please read the manual fully before using.

Mercury is a suite of applications written in a format that when installed gives fast and clear magnification and text-to-speech on a tablet. It is unique with the features it offers and the accuracy of its spoken representation of text. We hope it will serve you well. Mercury is for Android tablets only.

Enclosed component parts:

- Stand base with articulated arm.
- Tablet with preinstalled Mercury software.
- Tablet charger and charge lead.
- Large felt case for carrying everything.
- Small felt case for the charger and charge lead.
- Adjustment hex keys for the articulated arm.
- Instruction manual.

Optional extra's:

Bluetooth speaker. (see page 15)

Bluetooth large character keyboard. (see page 16)

- **IMPORTANT** – When inserting the stand into the felt case, place it so that the bottom of the stand (the flat part) is towards the front of the bag. Place the tablet in the front pocket with the screen facing the flat side

(bottom) of the stand this will protect the screen from stress when transported in the felt case.

Setting up instructions

Remove the stand from the felt case and position it on a flat surface. Straighten the articulated arm so that the clamp is extended roughly 15 cm (6") above the base. (See fig 1).



Fig 1

Carefully insert the tablet into the clamp making sure the side buttons of the tablet are not positioned under the clamp and being depressed.

TIP to insert tablet into arm: While holding one side of the sprung clamp with one hand insert one side of the tablet. Then while still holding the tablet insert a finger over the other side of the sprung clamp pulling it over the edge of the other side of the tablet and gently releasing.

Ensure that the position of the tablet in the sprung clamp doesn't obscure the camera lens on the back of the tablet. The camera should be able to view the base of the stand unobstructed. (see fig 2).



fig 2

Using Mercury

Turning on and off

Turn the tablet on by depressing the appropriate button on the tablet. (Depending on the make and model of your tablet the on/off button may vary in position).

It is normally possible to put your tablet to sleep by pressing the on/off button once and once again to switch it on.

To power the tablet off follow the shutdown procedure recommended in the manual for the tablet.

Check the battery before starting and attach the charger if required. The battery life will be stated in the tablet's manual. Mercury does not require any additional battery capacity when working.

The initial start-up screen will show two options:

1. A large Mercury icon will appear in the middle of the screen. Tap this once to enter the Mercury application.
2. A smaller icon below it with nine small white squares inside it. Press this to enter the tablets apps menu.

Navigating the screen icons when in Mercury

All the functions of Mercury are touch screen. To identify an icon place a finger on the screen and move it around. When an icon is located a voice will announce what the icon is. Remember this and its position on the screen for future use.

Once identified the icon can be activated by tapping it again. All the icons operate on a double tap, this allows easy interrogation of the screen and use of the icons.

Whenever a round red icon with a cross in it is seen, it represents back or exit from whatever process is running. A voice will always announce its function.

Selecting the “Mercury” icon

When the “Mercury” icon is selected a voice will say – “magnifier started”.

Magnifier

This is the magnifier mode. Anything put under the camera will now be magnified.

- To focus tap the screen with one finger.
- To enlarge the size of the image shown, touch the screen with the thumb and index finger and perform an opening pinch movement.
- To reduce the size of the image shown, touch the screen with the thumb and index finger and perform a closing pinch movement.
- To change the colours of the text and background tap the screen with three fingers. The colours will toggle in order. If Mercury is switched off and restarted it will remember the colour and size settings that were previously used and reinstate them.
- To turn the tablet lights on and off, tap the screen with four fingers. This is a toggle switch. (Not all tablets are fitted with a light)
- Freeze frame. (lock a picture on the screen so it doesn't move). To activate and deactivate the freeze frame function tap the screen with five fingers.

On the left hand side of the screen there are three round icon buttons in a vertical line.

From top to bottom these are:

- A red circle, **OCR** (optical character recognition) this is the text-to-speech reader option.
- A yellow circle with a camera picture (**take picture icon**).
- A red circle with two white cogs inside (**settings menu icon**).

Distance viewing

There are occasions when the viewing of distant objects, pictures, a board at the front of a classroom or a bird table outside the window for instance is required. Mercury can do that easily. Using the magnifier mode and extending the arm vertically the camera in the tablet can be angled towards distant objects. (See fig 3)



Fig 3

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The joint on the clamp and the joint to the base allows for easy panning around a room or environment.

If however you feel confident enough to use Mercury out of the stand, it also works well.

OCR – See the section later in the manual.

Take picture – This icon takes a picture of what is under the camera in the 1x size (image not magnified). Once the image is on the screen it can be magnified and reduced using the pinched fingers method. The advantage of this mode is that the enlarged image will move with the movement of the finger. The colours in this mode are changed using the blue icon button with a picture of a pallet on the left side of the screen. This mode is very useful for taking a snapshot of a bus timetable or restaurant menu for example and reading it later.

To exit this mode press the red icon with a white cross in it.

Settings – This icon enters the menu that controls how Mercury is represented. The options are:

- 1) **General settings.**
- 2) **Reader Settings.**
- 3) **Magnifier settings.**

1) Enter General settings and further menus will appear:

- **Speech settings**

Speed of reading, choose either low, medium or high.

Volume, low, medium or high.

Voices, this is a choice of voices male and female.

- **Text options**

Text size – Menu text small, medium or large.

Text colour – Menu text white, black, blue, red or yellow.

Highlight colour – Reading text white, black, blue, red or yellow.

Background colour – Reading text white, black, blue, red or yellow.

- **Language**

Many languages are installed. A selection are already loaded:

English, German, French, Norwegian, Swedish, Spanish, Finish, Polish, Dutch, Portuguese, Danish, Italian, Russian, Turkish, Greek, Czech and Slovakian.

- **Orientation**

This controls the orientation of the image – original or flipped upside down.

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2) Enter Reader Settings and a further menu will appear:

- **Camera options**

Entering this menu allows the user the choice of the tablets integrated camera or the use of an external USB camera.

3) Enter Magnifier settings and further menus will appear:

- **Minimum zoom** – Zoom 1, Zoom 2 & Zoom 3. This controls initial size of the text when the magnifier is switched on. Zoom1 being the smallest and Zoom3 being the largest.
- **De-skew** – If the tablet being used is fitted with an orientation sensor then Mercury can de-skew the picture for easier reading. If the image would normally be narrower at one end compared to the other. De-skew will correct this showing the lines straight and easier to read.

OCR (Optical Character Recognition)

By tapping the OCR icon button twice Mercury will announce “reader started”.

The image on the screen will be very small. This doesn't matter as the whole purpose is purely to align the reading material under the camera. It doesn't matter either if the paper is straight or not. Just be aware that what is not shown on the screen will not be recognised. If the intention is to read

a whole page of A4 text, then it might be necessary to raise the tablet higher on the stand so the whole page can be seen.

TIP: Turn the page to be read into landscape orientation (sideways) and more of a page can be seen.

To read a page

Once the page is roughly positioned tap the middle of the screen twice. Mercury will announce “take picture” then “picture taken”. A few seconds will pass indicated by a ticking noise while the text is recognised. Mercury will then start reading it out in the voice chosen.

It is quite common for Mercury to initially read some strange characters as the edge of the page is irregular. When Mercury starts reading use the open and closed pinch action with the fingers to adjust the text size. When in the mode where the “ORIG” icon is crossed out, Mercury will always adjust the line length to suit the width of the screen. Move a finger upwards and downwards on the screen to scroll through a document. (See toggle reading mode further on).

To advance through a document tap twice on the blue right arrow icon located at the bottom right corner of the screen. To read text again and go back through the text tap twice on the blue left arrow icon at the bottom left corner of the screen.

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The pause speech icon is situated in the centre of the screen at the bottom. Once paused this icon turns into a green arrow. Tap this twice to resume reading.

Even though the speaking has been paused it is still possible to navigate through the document by moving a finger up and down on the screen.

Icons on the OCR screen.

There are five icons located at the bottom of the screen. From left to right:

- Save picture.
- Toggle reading mode.
- Settings.
- Toggle table mode.
- Load mode.

Save picture – saves a picture, the picture is not in the form of recognised text, only as an image. It is saved in Mercury’s own location and can only be used by Mercury. When reloaded Mercury will perform a recognition on the image and then speak it out.

Toggle reading mode – Toggles how the picture is represented when it is read out. If the yellow icon saying “ORIG” (second in from the left) does NOT have a red cross over it the speech (indicated by a moving box) will follow a

picture of the original text. The picture size can be varied using the open and closed pinch action with the fingers to adjust the text size.

If the magnification is too large in this mode the text will start jumping around the screen. If this happens it might be easier to go back to the OCR screen and tap twice on the yellow “ORIG” icon till a red cross appears over the icon then scan the page again. This time the text will be resized to the width of the screen regardless of magnification.

Settings – refer to the settings explanation earlier in this manual for the setting adjustments.

Table mode – This icon detects columns of text and reads them in order. In general this is always preferred but sometimes when reading bank statements it is preferable to read across a page regardless of columns. If this is the case the column mode can be disabled. Here it is called table mode. To enable columns to be read this blue icon should not have a cross over it.

Load mode – Tap on the far right icon twice and load mode will be announced followed by the date and image number of the saved image. On this screen there are three icons. Tap the left green icon twice and you will move back through the saved images whereas the right green icon will move forward. Tap the middle of the screen to select the chosen image. Mercury will then perform the page recognition and read it

out. The middle blue icon with a bin pictured will delete the image showing from its memory.

To exit this mode tap twice on the red icon with a cross on it.

Other options on the OCR screen

At the top left hand corner of the OCR screen is a blue icon with a magnifying glass in it. Tapping this twice takes you back to the magnifier mode announcing “magnifier started” (Refer to page 7).

At the top right corner of the OCR screen is written light on or light off. Tapping this space twice will turn the light on or off if your tablet is fitted with a light.

Note: Some tablets are not fitted with a light. These tablets usually have a superior camera built in and do not require a light to function. If a light is required then a standard room light or desk light should suffice.

Accessories

Wireless large character keyboard

To help with typing a large character wireless Bluetooth keyboard can be connected to the tablet. These are available in four colours: Black letters on a yellow background, yellow on black, black on white and white on black. Please contact Pamtrad for availability and prices.

Wireless speaker

If extra volume or quality is required a wireless Bluetooth speaker can be connected to the tablet. These are self-contained units with their own rechargeable battery. They are small and offer exceptional quality. Please contact Pamtrad for availability and prices.

Enlarging the other applications on the tablet

Depending on the operating system of your tablet it is possible to enlarge the installed applications. Please ask your supplier how to do this.

Care and maintenance

The stand

The stand consists of two component parts, the base and the arm. At the foot of the arm are two suction clamps which hold the arm securely to the base. The arm can be detached and used separately if required by raising the two white securing levers then gently prising the suction cups from the base. Two rubber tabs are fitted to help.

Through constant use the arm might become loose. If this happens three Allen keys are provided with your package to adjust the tension on the joints.

TIP: Do not tighten the joints too much as this might cause unnecessary stresses on the arm when being opened and closed up.

Stand cont.

The stand and arm can be cleaned with a normal nonabrasive cleaner and cloth. Please refer to the cleaning instructions appropriate for the tablet you are using.

If the suction cups need cleaning this can be done with a light solvent like methylated spirits. This will restore the stickiness to the suction cups and remove unwanted dust.

Warranty

Pamtrad Customs Ltd certifies that, when supplied as new Mercury is free from defects in material and workmanship. This covers the Mercury software, stand and case through normal use. We will repair or replace at our discretion any parts that prove to be faulty through the fault of the manufacturer excluding the tablet. The tablet is covered by the manufacturer's own warranty. Please refer to the appropriate documentation supplied with the product. We will provide this facility as long as Mercury has been operated under the proper conditions of installation and has not been tampered with by any persons not authorised by Pamtrad Customs or its agents and that it is solely serviced by Pamtrad Customs and its agents.

This warranty is valid only when serviced in the country of original purchase. This warranty is valid for a period of 2 years effective from the date of delivery. For warranty claims or

service during or after the warranty period please contact your distributor.

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WEEE Directive & Product Disposal

At the end of its serviceable life this product should not be treated as household or general waste. It should be handed over to the application collection point for the recycling of electrical and electronic equipment, or returned to Pamtrad Customs for disposal.