# GEMINI

#### OFFICIAL USER GUIDE

MIKE HALSEY







# Gemini PDA User Guide



#### Gemini PDA User Guide

Written by Mike Halsey

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With thanks to the Gemini owner and user community, and especially to those that contributed to the editing and proof-reading of this book.





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## **FOREWORD**

Humans have been communicating using writing systems as early as 3100BC, starting in ancient Sumer and continuing through to today. Apart from storytelling (which pre-dates writing), it has been our main form of communicating and recording spanning over 6 millennia. Egyptian Hieroglyphics on papyrus scrolls became a prevalent documenting method of ancient Egypt. The Ancient Greek philosopher, Plato, recorded Socrates' views on the dangers as well as benefits of introducing writing to a society, in the Phaedrus dialogues. From Phaedrus 14, 274c-275b:

Socrates: I heard, then, that at Naucratis, in Egypt, was one of the ancient gods of that country, the one whose sacred bird is called the ibis, and the name of the god himself was Theuth. He it was who invented numbers and arithmetic and geometry and astronomy, also draughts and dice, and, most important of all, letters.

Now the king of all Egypt at that time was the god Thamus, who lived in the great city of the upper region, which the Greeks call the Egyptian Thebes, and they call the god himself Ammon. To him came Theuth to show his inventions, saying that they ought to be imparted to the other Egyptians. But Thamus asked what use there was in each, and as Theuth enumerated their uses, expressed praise or blame, according as he approved or disapproved.



-"The story goes that Thamus said many things to Theuth in praise or blame of the various arts, which it would take too long to repeat; but when they came to the letters, "This invention, O king," said Theuth, "will make the Egyptians wiser and will improve their memories; for it is an elixir of memory and wisdom that I have discovered." But Thamus replied, "Most ingenious Theuth, one man has the ability to beget arts, but the ability to judge of their usefulness or harmfulness to their users belongs to another; and now you, who are the father of letters, have been led by your affection to ascribe to them a power the opposite of that which they really possess.—"For this invention will produce forgetfulness in the minds of those who learn to use it, because they will not practice their memory. Their trust in writing, produced by external characters which are no part of themselves, will discourage the use of their own memory within them. You have invented an elixir not of memory, but of reminding; and you offer your pupils the appearance of wisdom, not true wisdom, for they will read many things without instruction and will therefore seem to know many things, when they are for the most part ignorant and hard to get along with, since they are not wise, but only appear wise."

With the invention and introduction of moveable type printing press technology in China (1040), Korea (1377) and Europe (Gutenberg 1450), mass reproduction of text and documents became possible, usually on paper as the medium. With the advent of typewriters in the 19<sup>th</sup> century, machine-aided mechanical and



electromechanical allowed for writing of characters on paper. Then, in early to mid-1900s, tele printers allowed the communication of text to other tele printers. Starting with the word processors in 1960s and personal computers in 1970s, keyboard text entry moved completely digital, allowing storage of typed text as well as document communication. The Internet enabled high accessibility to written material from the 1990s.

Also in 1990s, Psion created a pocketable and portable digital device called the personal digital assistant (the PDA) that allowed users to write documents on the move. The PDA introduced true writing on the move with a pocketable keyboard. Research in Motion, the makers of the Blackberry, extended the functionality of two-way pagers by introducing a tiny pocketable keyboard mobile device, that later moved to standard mobile networks worldwide.

Since the early 2000s the development of the smartphone has led consumer mobile devices to become mostly gesture-based, now using edge-to-edge touchscreens with no room for physical keys or a keyboard. A compromise solution was created for users to be able to enter text, a virtual on-screen keyboard. Many people find it difficult to write using the on-screen keyboard. So, the modern smartphone has taken away the ability to adequately write on the move. Writing has become a compromise activity and therefore modern smartphone users will be more likely to use other functions, such as recoding images or videos, or consuming content from the Internet. With the creation of the Gemini PDA - a modern PDA for the 21<sup>st</sup> century, we are allowed to create on the move



again. It is re-introducing a pocketable mobile device with a keyboard adequate for typing and writing on the move.

I knew I was missing the keyboard – that is why I was so keen to reinvent the PDA form factor for the 4G Mobile Internet generation. Everyday tasks like writing of quick notes, editing text documents and spreadsheets and especially time and life planning using a proper calendaring application are clearly things that are better done on a PDA than a slab form factor smartphone. Coupled with modern Internet connectivity, 4G LTE Wi-Fi and Bluetooth , a high-resolution colour touch screen, modern messaging applications, social networking apps and mobile email, I hope that the Gemini will truly flourish in today's world and be a valuable everyday tool for the creative elements in our society.

Dr. Janko Mrsic-Flogel

CEO, Planet Computers Ltd.



"The pen is mightier than the sword"

Edward Bulwer-Lytton, 1839





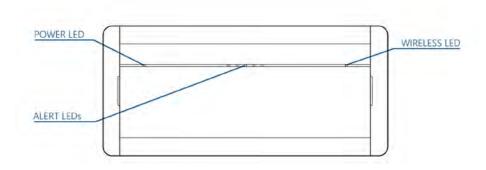
## **GETTING STARTED**

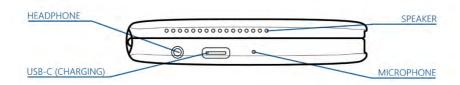
This manual contains information about the Gemini PDA. It gives an overview of all the Gemini functions to give you an idea of what you can do; for more detailed information than is given here, refer to the Gemini online help and support at the Planet Computers website planetcom.co.uk and enthusiast website geminiplanet.com.

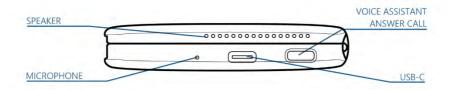
- Read the first part of this chapter to find out how to get the Gemini ready for use: charge the battery, switch on, sign into a Google account, adjust the screen, set the time and your location.
- The rest of this chapter tells you all you need to know to be able to start using the Gemini; how to run apps and switch between them.
- After you have started using your Gemini PDA, turn to the "Security & Backups" chapter for details of how to protect your information against loss, damage, and prying eyes.



#### WHERE THINGS ARE









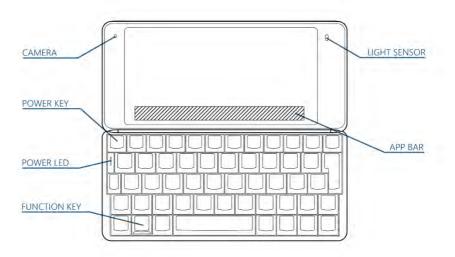
#### TIP

There are several websites and places online where you can get help, support, tips and accessories for your Gemini.

Planet Computers Store - https://store.planetcom.co.uk

Planet Computers Support - https://support.planetcom.co.uk

Gemini Planet fan and owner website - www.geminiplanet.com



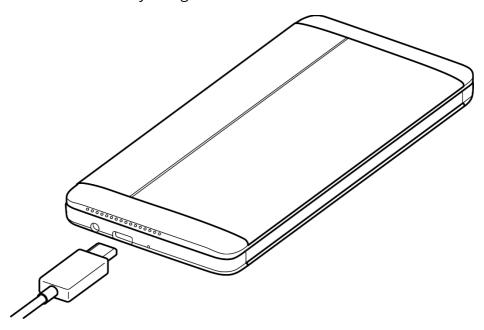


#### CHARGING THE BATTERY

Before you can use the Gemini PDA you will need to charge the battery. The Gemini is charged via USB-C. **Only** the USB-C port on the left side of the Gemini can be used to charge the device.

When you are charging the Gemini the power LED on the top of the case will indicate the charging status.

- **RED** charging but less than 50% power
- ORANGE charging over 50% power
- **GREEN** fully charged

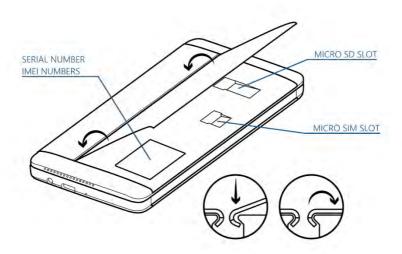




#### INSERTING SIM AND MICROSD CARDS

The 4G (LTE) version of the Gemini supports MicroSIM cards, and all versions of the Gemini support MicroSD storage cards up to 256GB in size. These reside underneath the top cover which is removed using the cover removal tool as detailed in the *Quick Start Guide*.

Once the cover is removed, it is wise to make a note of, or to take a photograph of the Serial number and IMEI numbers for the device, in case these are needed later for warranty, because of theft, or by your cellular network.





#### CONFIGURING YOUR MICROSD CARD

When you install a MicroSD card you are asked if you want to *use* [it] as portable storage or use [it] as internal storage. These offer different functions on the Gemini.



• Use as portable storage shows the MicroSD Card as its own separate storage area. If you choose this option, you will also be asked if you want to *change the default write disk*. Changing the default write disk to the MicroSD card will enable you to save photos taken using the Gemini camera, and newly created files to the MicroSD card automatically, but apps and other downloadable content such as maps will still be installed to the Internal storage. This option allows you to remove the MicroSD card and read it on other devices such as a PC or laptop.





 Use as internal storage merges the MicroSD card with the Gemini's internal storage, creating a pool of combined storage. This option gives you considerably more storage for apps, and other downloadable content, however the combined storage can only work as fast as its slowest component. This means if you have a slow MicroSD card (such as a Class I or Class II) the overall storage operations of the Gemini might be slowed.

#### **TURNING THE GEMINI ON & OFF**

**To switch on:** Press the Esc key. When you do this for the first time, you'll see the Android Welcome screen, after initial setup you will see the Home screen. When the Gemini is in standby, it will automatically switch on when you open the case.



**NOTE:** The Gemini will automatically switch on when the case is opened, when an alarm or a reminder rings, when you receive a phone call, or if you press the Google Assist button.

**To place into Standby:** Hold down the *Fn* key and then press the *Esc* key. You can also close the case to place the Gemini into standby at any time; you do not have to save your information first when placing the Gemini into standby.

**NOTE:** If you do not press a key, the Gemini will automatically go into standby off after a few minutes to save battery power. When you switch it on again you can continue from where you left off.

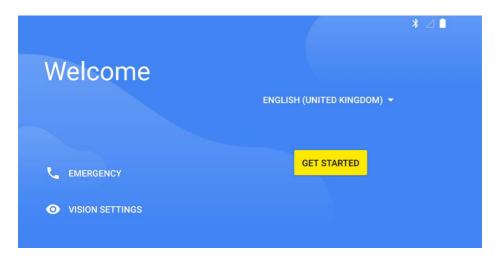
**To turn the Gemini off or Restart the Gemini:** Press and hold the Esc key for 2 seconds, this will display a menu offering *Power off* and *Restart* options.

**NOTE:** Alarms, reminders, and incoming calls will not work when the Gemini is switched off.

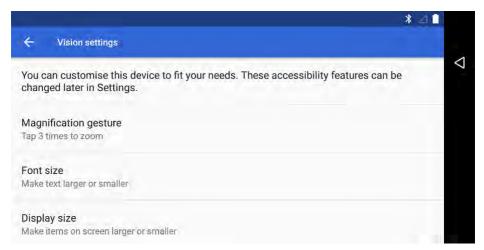
#### SETTING UP THE GEMINI

When you switch on your Gemini for the first time you will be presented with the Android welcome screen. It is through this that you will configure basic options for the Gemini, such as location, time and date, and through which you can create or sign into a Google Account.



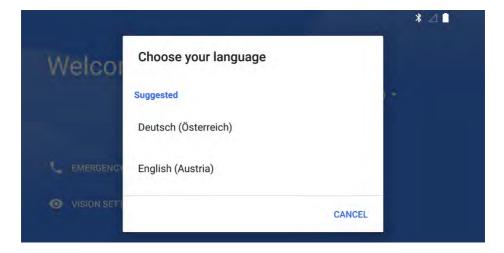


If you need support with accessibility, tap the *Vision settings* link to display options including a magnifier, increased font size, variable display size and screen reader.





Choose your location and language from the drop-down menu in the centre-right of the Welcome screen, then click the *Get Started* button.



If you have used an Android device before, or if you are migrating from an iPhone or iPad, you can select *Keep your apps & data* which will enable you to port apps and settings from that device.

Alternatively, if you want to start with a clean Gemini, click *Set up as new*.



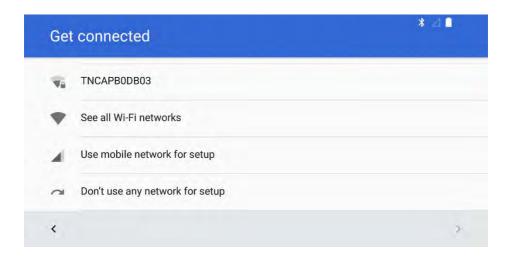
#### **CAUTION**

Setting up the Gemini can use a lot of data, especially if you are importing apps and settings from another device. It is best not to use a cellular network for setup to avoid going over your data allowance and incurring large bills



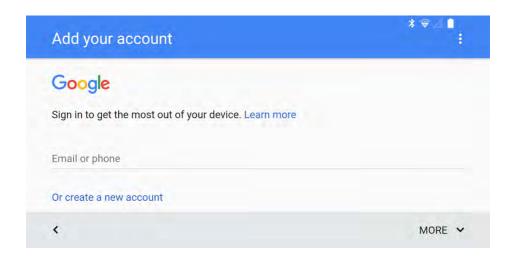
The Gemini will need access to the Internet to set itself up properly. You will be prompted to connect to a local Wi-Fi network, use your 4G (LTE) cellular network for setup (if available on your device), or to not use any network for setup.





At this point you will be prompted to either sign into your Google account, or to create a Google account. This is required to use services such as the Google Play [App] Store, from which all apps are installed onto the Gemini.





#### TIP

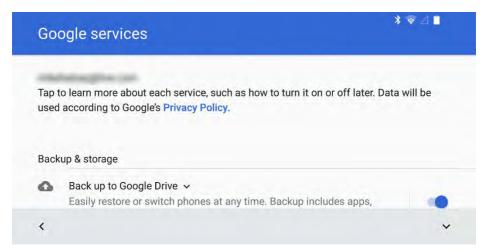
The Gemini is configured with a UK English keyboard by default, this means that when you first set up the device you will need to press **Fn + K** to access the **@** symbol. We will show you how to configure the hardware keyboard later in this chapter.



#### **CAUTION**

Some services exist online to let you install apps from the Google Play Store without needing a Google Account. However there are significant security risks posed by having apps that are not updated, or that are *sideloaded* onto the Gemini, so this is not recommended.

Once you have signed into your Google account you will be presented with privacy options. These are all activated by default, but you can deactivate each one by tapping the switch to its right.



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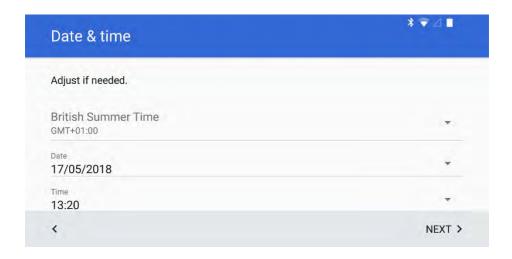


The privacy options in Android are...

- Back up to Google Drive helps restore your Gemini's settings and apps should it need to be reset, if you install dual-boot firmware, or should you move to a different Android device in the future
- Help apps find location activates the GPS location services.
   This is used by the Maps app, and by other apps that allow you to "check in" to your current location
- Improve location accuracy uses your Wi-Fi and Bluetooth systems to improve the accuracy of determining your location
- Send system data sends periodic telemetry to Google about the status of your device, which Google uses to improve the operating system and its app ecosystem
- Install updates and apps should not be deactivated. This
  setting will enable the Gemini to automatically update all
  your installed apps and Android to the latest versions,
  helping to keep the device secure and stable

Once you have chosen your privacy options you will be asked to confirm the current date and time. If you have an active Internet connection this will be automatically set for you, determined by the location you specified at the welcome screen.





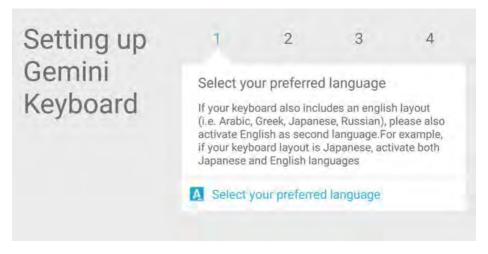
#### CONFIGURING THE HARDWARE KEYBOARD

If you have purchased a Gemini that has a non-UK keyboard you will need to configure the keyboard so the layout matches the what appears on screen when you type.

- Open the Google Play App Store and check for updates, you will need the latest version of the Gemini Keyboard app installed. You can check for updates by tapping the Hamburger menu and then tapping My apps & games.
- 2. From the Gemini home screen, tap the all apps icon and run the *Gemini Keyboard* app, selecting the *Configure* option.



- If you do not see a *Gemini keyboard* option, open Settings then tap *Languages & input*, followed by *Virtual keyboard*, followed by *Gemini keyboard*, followed by *Configure*.
- 3. At the screen that appears tap *Select your preferred language*.

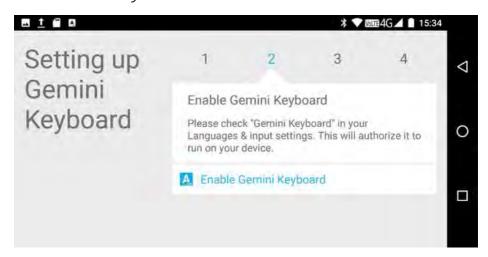


4. At the next screen if your chosen language is not listed, tap *Add a language* to add it to the Gemini.





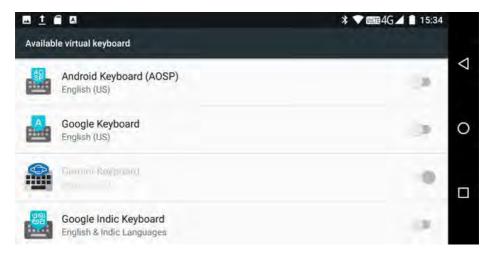
5. Tap the *Back* ✓ button and at the next screen tap *Enable Gemini Keyboard*.



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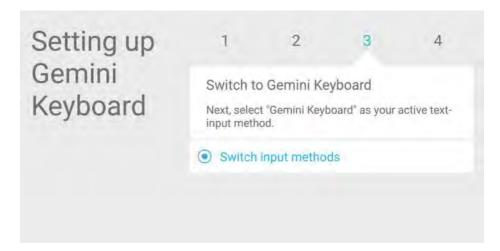


6. From the list of available keyboards that appear, turn on the *Gemini keyboard option*. You should disable all the other keyboards.

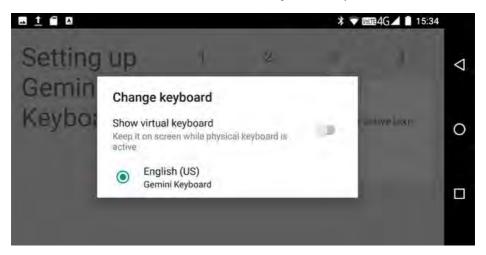


7. Tap the *Back* ○ button again, and at the next screen tap *Switch input methods*.





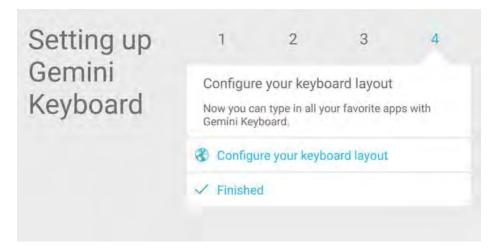
8. The next screen will display an option for the Gemini Keyboard in your language and you can select it, you will not need to have the *Show virtual keyboard* option activated.



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9. Tap the *Back* ✓ button one last time to complete setup, then tap *Configure your keyboard layout*.

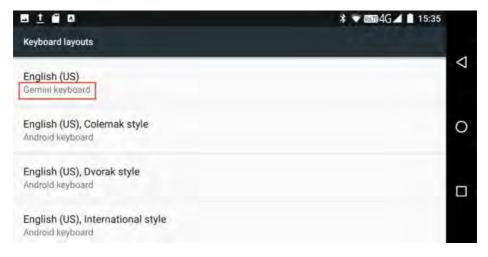


10. Lastly, tap on the *Gemini keyboard* option in your language. Do **not** select one of the Android keyboard options, or some keys may not work properly.



### **CAUTION**

Not setting security on your Gemini can expose your personal files and data to theft if the device should be lost or stolen.



You have now finished setting up your physical keyboard in your own language.



## PROTECTING YOUR GEMINI

With the basic setup completed, you will be asked to secure your Gemini. This can be done in several ways, or a combination thereof.

- Pattern uses a grid of nine dots between which you can draw a pattern which is then used to unlock your Gemini
- PIN allows you to set a pin code of four digits or more
- Password allows you to set a password for the Gemini
- Not now does not set security for the Gemini and allows you to do so later.

#### TWO-FACTOR AUTHENTICATION

**Two-factor authentication** can help prevent hackers and criminals getting access to your accounts online. It is a system adopted by all the major technology and Internet companies that uses a second security system to identify you and unlock services and website access.

This could be biometrics, using a fingerprint or iris scanner, a cellular phone number to which they can send an SMS text message, or an email address.



#### TIP

A full password is much more secure than a PIN because, for example, a four-digit numeric pin can only have a maximum of 9999 combinations. Passwords can have billions.

To set a secure password follow these tips...

- Do not use names or dictionary words, use a phrase or several words to make your password longer
- Scatter some numbers into the password, but do not use a date
  of birth, for example, use the number 1 instead of an i or L, a 3
  instead of an E, or a 7 instead of the letter T or Y.
- Use both lower and upper-case letters, in a seemingly random pattern if you can, such as capitalising not the first, but the third and fourth letters of each word
- Insert some symbols to make your password really secure, such as using a \$ instead of an S, () instead of a zero or O, an & instead of A or >< instead of X</li>

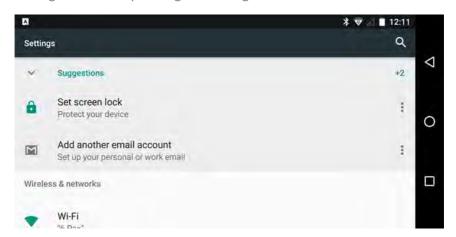
You can check the security of your own password by visiting www.HowSecureIsMyPassword.net



Using two-factor authentication can significantly boost the security and integrity of your personal data and devices. You can set up two-factor authentication for your Google account at <a href="https://myaccount.google.com/security">https://myaccount.google.com/security</a>.

#### TIP

If you choose not to set a password, pin, or pattern don't worry as you can do so later. Open Settings by pressing **Fn** + on your keyboard, and you will see *Set screen lock* as an option. You can tap this to manage the security and sign-in settings on the Gemini.



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#### TIP

If you find the Gemini keyboard set to UK (English) layout after setup completes, tap the ^ icon in the bottom left corner of the Home screen to display the all apps list, and open **Gemini Keyboard**.

Once the app is open, click the **Configure** option and then tap **Select your preferred language**. Select the language you wish to use, then tap the *back* button to return to the configurator.

Next, tap **Enable Gemini keyboard**. We strongly recommend you disable all other keyboards that may appear at the next screen. Then tap the *back* button again to return to the configurator.

Next tap **Switch input methods** and make sure your chosen language is selected. Tap the *Back* button again.

Tap **Configure your keyboard layout** and make sure that *Gemini keyboard* is listed at the primary keyboard layout at the top of the screen, with your chosen language.

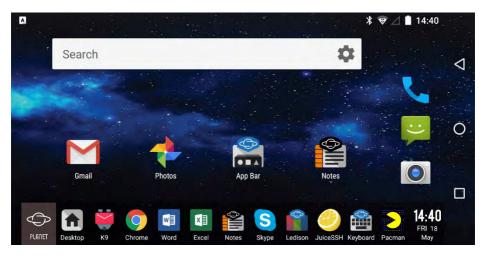


## FINISHING SETUP

You are almost finished setting up your Gemini. The final stage is to add any other email accounts you wish to use with the device, such as your Office 365 work account, set up Android to recognise your voice so you can use the Google Assistant feature (more in this in the chapter *Using the Gemini as a PDA*) and setting up additional devices such as wearable heath and activity monitors, and smartwatches.

## THE HOME SCREEN

Once setup has completed you will see the Android *Home Screen*. It is here that you will find and open (by tapping) apps on your Gemini, make and receive calls (on the 4G version) and send and receive messages.





The Home Screen consists of the following areas...

**Top left** is the notification area, where you will see icons appear to inform you of messages, calls, events, and updates

**Top right** is the status section, here you will see icons representing (among other things) your Bluetooth, Wi-FI, cellular and battery status, along with the current time

**Top centre** is the Google search box. This is a sample widget, you can read more about widgets in the *Using Google Android* chapter. You can type into this box to perform Internet and local searches

**Middle centre** are icons for some of the installed apps. In the example shown these are Gmail, Google Photos, the Gemini App Bar, and Gemini Notes. You can drag and drop icons around the home screen to arrange them how you like

**Right side** is where you can find pinnable icons, there are five allowed and you can drag and drop any icons to these location. The default options are Phone, Messaging, and Camera

Far right is where you will find the universal Android controls of Back  $\triangleleft$ , Home  $\bigcirc$ , and App Switcher  $\square$ . The Home button will bring to you to the Home screen from wherever you are in Android or in an app, the App Switcher button will enable you switch between, and close running apps, and the back button takes you back one step in a sequence whatever you are doing

**Bottom centre** is the Gemini App Bar. This auto-hides after five seconds and can be opened at any time by pressing the Planet key



on your keyboard. More about this in the *Working on the Gemini PDA* chapter

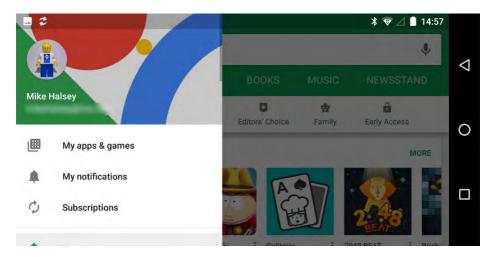
The Home Screen on the Gemini is fully customisable, and I will show you how to change it to look and work the way that suits you best in the *Using Google Android* chapter.

## DOWNLOADING AND INSTALLING APPS

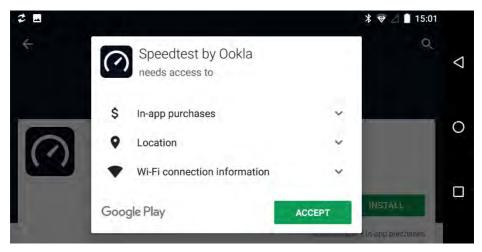
When you start using your Gemini you will want to download and install apps. You can get these from the Google Play Store. Press the ^ icon in the bottom left of the Home Screen and select **Play Store** from the list of apps that appears.

The Play store allows you to search for apps by category, popularity, or via a search box in the top centre of the screen. Additionally, if you have used Google Android before, you can click the Hamburger menu = to the left of the Search box to open a panel of options. Here you can click *My apps & games* to see a list of apps you have previously purchased or installed on other Android devices.





When you install an app, you might be asked to authorise permissions that it will need. These can include access to your phone (to make and receive calls, or to identify the device for online banking), files and folders, contacts, camera, microphone, or location.





We will look at app permissions in more detail in the *Using Google Android* chapter, but do not assume that any app needs all the permissions it asks for in order to work. Some apps want them so as to upsell additional services or goods to you (such as in-app purchases in a game), use viral marketing to have you inform your friends about the app, and sometimes (though very rarely) malicious apps will actively try and steal your personal data, or use your device to make and send premium-rate calls and messages.

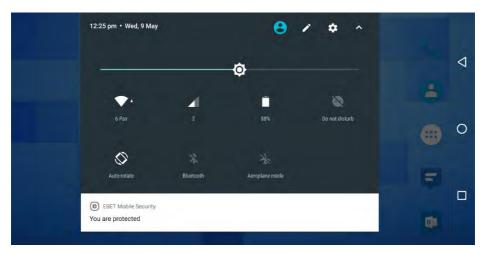
You can choose individual permissions for an app at its install screen. If an app genuinely requires a permission to work properly, it will ask you again the next time you open it. If you're unsure if that app really needs, and should have that permission, there will be alternative apps in the Play Store that you can use instead.



# ADJUSTING THE SCREEN BRIGHTNESS

You can adjust the screen brightness in one of two ways. From the keyboard, hold down the **Fn** key and press the \*O- or \*O+. Note that there are a great many "steps" to the brightness control, so you may have to keep pressing these keys (don't press and hold) to change the brightness to the level you want.

You can also adjust the screen brightness on the Gemini by swiping downwards from the top of the screen twice until you see the horizontal brightness control. You can slide this left or right to achieve the desired brightness for your screen.



**NOTE:** The locations of the •- or • keys may vary depending on which international variant of the Gemini you are using.

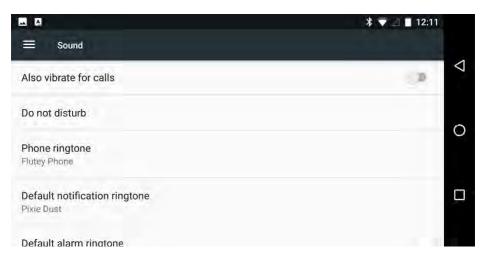
48



### SETTING CALL AND ALERT SOUNDS

One of the very first things anybody wants to do with a mobile device is set their ring, alarm and alert sounds. You can do this from the Settings panel, and the quickest way to open that is to press **Fn** + on your keyboard.

Once in Settings, scroll down until you see *Sound* listed and then tap it. The sounds panel allows you to change every aspect of audio on the Gemini from the volume, to screen tap sounds, and the in-built vibration mechanism.



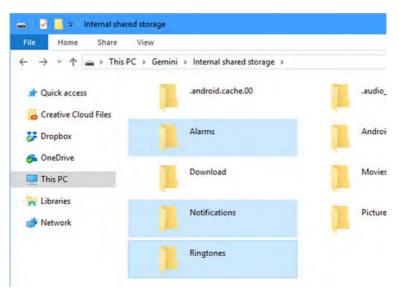


#### TIP

If you want to add your own ringtones and alert sounds to the Gemini, you can achieve this by attaching the Gemini to a PC or Mac via USB.

You can then swipe downwards from the top of the Gemini screen to display the Notifications panel where you will see a notification called **USB charging this device: Tap for more options**. Tapping this displays a menu in which you can select *Transfer Files*.

The Gemini will now appear in File Explorer (PC) or Finder (Mac) and you can copy audio files to the three audio folders, Alarms, Notifications, and Ringtones. You may need to restart the Gemini before your custom sounds appear.





# WORKING ON THE GEMINI

# PDA

The Gemini PDA is a productivity-focused device, and it can help you work effectively while on the move. The Gemini requires a different way of working than you might be used to, so getting to grips with the device, and finding your way around might at first appear a bit of a learning curve. This chapter is your primer, to help you get up to speed quickly.

### USING THE KEYBOARD

The Physical keyboard is the first thing you will note about the Gemini. It is a 53 key full alphanumeric keyboard with individually moving keys.

**NOTE:** For some international variants the keyboard layout will vary, for example the while the UK keyboard has a "QWERTY" key layout, the French keyboard has an "AZERTY" layout. Also some of the **Fn** key options will vary, and be placed differently on different international keyboards, so as to accommodate local characters.

The keyboard has several keys worthy of note.



**Esc (Escape)** – this can be found in the top left corner of the keyboard, and is used to switch the Gemini on, or with the **Fn** key to switch the Gemini off.

**Del** – is found in the very top right of the keyboard. Press the Del key to delete characters to the *left*, or with the Shift key to delete characters to the *right*. Del is also used with the **Fn** key to open the Android Settings panel.

**Tab** – is used to create a tabulation mark in documents, or with the **Fn** key to switch Caps Lock on or off.

**Ctrl** – is used with various keys on the keyboard to perform common functions. These include Ctrl + X (Cut), Ctrl + C (Copy), and Ctrl + V (Paste). Other Ctrl key combinations include...

Ctrl + P to open Settings

**Ctrl + W** to change the wallpaper

**Ctrl + S** to open the Google Play Store

Ctrl + M to open the Apps settings panel

Ctrl + N to open the Launcher settings

**Fn** – this is a special key used to access special characters or functions that are printed on the bottom of each key. Below are examples of the English (UK), French and Japanese keyboards, so you can see how international variations can affect key and symbol location.





The Planet key (Alt) - opens the dedicated Gemini App bar to which you can pin and launch applications.

The cursor keys  $\triangleleft \triangleright \nabla \triangle$  - are used to navigate left, right, up and down within the Gemini operating system interface, and open apps.

## USING KEYBOARD FUNCTIONS

The **Fn** key can be used in the following key combinations on all Gemini keyboards...

Fn + Off Switch off (use without Fn for Switch on)

Fn + 🗘 Open Settings

Fn + ▶ Play / Pause

Fn + ◀ Previous Track / Replay Track

Fn + ►► Next Track

Fn + [] Capture Screenshot



Fn + Mute Microphone
Fn + Caps Turn Caps Lock On / Off
Fn + Open Task Switcher
Fn + Home
Fn + Turn Airplane Mode On / Off

Answer Incoming Call

Fn + 🤰 Make call

Fn + ◀- Volume down

Fn + ◀+ Volume up

Fn + ◆- Brightness down

Fn + ◆+ Brightness up

Fn + ② Open Emoji panel

Fn + Mr Activate Voice Assistant

Fn + PgUp Page up Fn + PgDn Page down

Fn + Home Home / Go to beginning of paragraph or text

Fn + End End / Go to end of paragraph or text Fn + Sym Open additional characters panel

# USING THE ON-SCREEN KEYBOARD

Pressing the **Fn + Sym** key combination at any time will display the international and symbols on-screen keyboard. Here you can access a wide range of international currency, mathematical, and commonly-used characters and symbols.





Press the **ABC** button to display the full alphabetical on-screen keyboard. Press the **?123** button to switch to the numeric and symbol on-screen keyboard. You can choose from a selection of mathematical symbols by pressing the **=\<** button.

Occasionally you might see a  $\P$  icon appear. Clicking this will activate the *voice* function, where you can speak to the Gemini to dictate text.

#### TIP

You can switch between dark and light on-screen keyboards from the alphabetical keyboard and clicking the globe  $\bigoplus$  icon.



# THE EMOJI PANEL

Pressing the  $Fn + \Theta$  key combination at any time will open the onscreen emoji panel. There are different categories of emoji you can select from the icons across the top of the panel with the  $\Theta$  icon being where you can access your commonly-used emojis.



## USING THE APP BAR

The App Bar is displayed on screen whenever you press the Planet key on the keyboard. You can pin up to 11 frequently used apps to the App Bar for quick access. When you press the Planet key, the App Bar pops up from the bottom of your screen.





To the left of the App Bar is a Planet icon  $\bigcirc$ . Click this to display the App bar options menu.



The App Bar options menu contains quick links to the Planet Computers website, store, and support website. There is an icon to



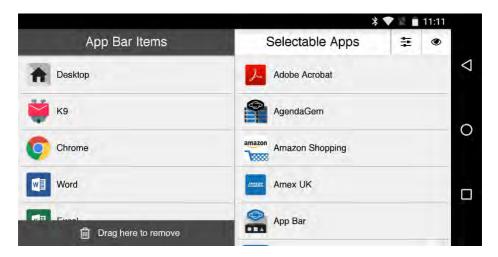
force screen rotation; the screen will return to normal by pressing the Planet key again. Lastly there is an App Bar options link.

To the right of the App Bar is a clock showing the current time and date. Tapping this will display quick links to the Android time app (which also contains alarms, timers, and a world clock) and the date and time settings.



When you open the App Bar settings you will be presented with two panels. The panel on the left displays apps that are currently pinned to the App Bar. The panel on the right displays a list of all your installed apps.





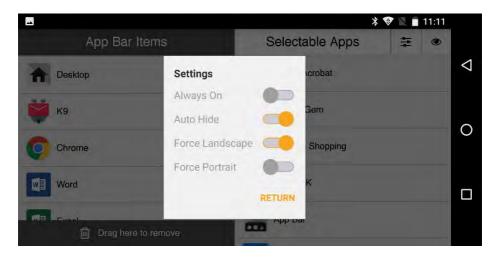
**To pin an app to the App Bar** – touch and hold it in the right panel, and drag it into the position you wish for it to be on the App Bar in the left panel

**To unpin an app from the App Bar** – touch and hold the app in the left panel, and drag it to the *Drag here to remove* section at the bottom of the screen

In the top right corner of the App Bar settings are two icons. The Settings icon  $\stackrel{*}{\Longrightarrow}$  opens additional settings for the app bar, and the eye icon  $^{\textcircled{\bullet}}$  temporarily displays the App Bar, so you can see how the changes you are making will look in practice.

Opening the additional App Bar settings reveals four options.





**Always on** – displays the App Bar all of the time, note this may cover some items or controls in any apps you use

**Auto Hide** – hides the App Bar after a few seconds of inactivity. Press the Planet con to reveal the App Bar again

**Force Landscape** – forces the App Bar to work in Landscape mode if you have your Gemini screen set to portrait orientation

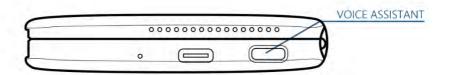
**Force portrait** – forces the App Bar to work in Portrait mode if your Gemini screen is set to Landscape orientation

### **USING VOICE ASSISTANT**

The Voice Assistant is a voice utility activated by the silver button on the right side of the Gemini. When you press the button, you will hear a sound indicating that you can speak to the Voice Assistant.



Different voice assistants can be installed from the Google Play Store including Alexa and Saiy, and you can choose which you want to use in the *Gemini Voice Assistant* app.



You can ask the Voice Assistant to perform various actions, such as "Call Jake", or "What appointments do I have today?". You can also use the Assistant to perform Internet searches, such as "What's the nearest sports centre?"

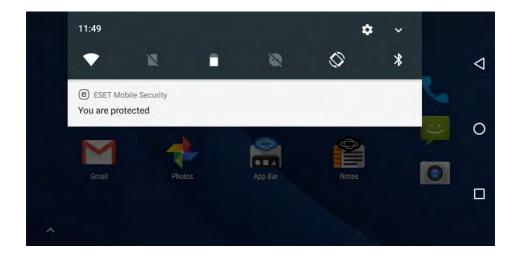
Google is adding more functionality to Voice Assistant all the time, and you can find out more about the available functionality by visiting http://assistant.google.com in your web browser.

# **CONTROLING SETTINGS AND NOTIFICATIONS**

If you swipe downwards from the top of your screen you will see the Quick Settings panel. Here you can quickly control commonly used aspects of the installed Android operating system.



Along the top of the Quick Settings panel you will see the current date and time, a link to the Android Settings, and a down arrow that reveals further options.



The icons across the Quick Settings panel are...

- Wi-Fi Turns Wi-Fi on or off on the Gemini, but does not allow you to connect to a specific network. It will connect to any network in the vicinity that you have previously connected to.
   To connect to a new network open Settings, and then navigate to Wi-Fi.
- Cellular appears if you have a 4G enabled Gemini. The icon will display your signal strength. Tapping the icon will disable

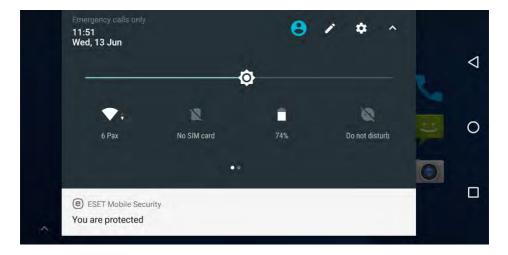


or enable your cellular connection. You will see one of these icons for the SIM card slot, and another for the embedded eSIM.

- Battery displays your current battery level. Tapping the icon displays a graph showing your battery usage, and a quick activate button for the Battery Saver feature. There is more in this in the *Using Google Android*chapter.
- Do Not Disturb allows you to activate various options that can silence notifications, calls, or alarms on the Gemini. This will be covered in the *Using the Gemini as a PDA* chapter.
- Rotate is a control to rotate the screen orientation, note this can be overridden by specific Gemini Settings.
- Bluetooth turns Bluetooth radio on or off.



Swiping downwards from the top of the screen again, or touching the small down arrow at the top right of the Quick Settings panel reveals further settings.



At the top of the Quick Settings panel you will now see additional options for adding and managing users on the Gemini. This will be covered in the *Using the Gemini as a PDA* chapter.

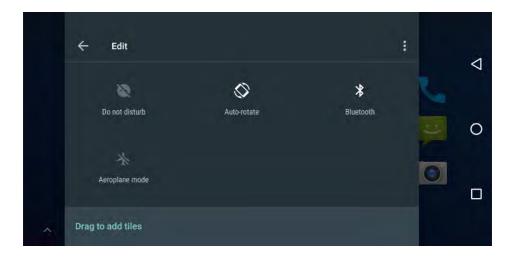
The pencil icon allows you to customise the quick settings icons, so that you can move them around, or add more. At the bottom of the screen you will see a Drag to add tiles section. Drag this upwards to reveal additional Quick Settings options that you can add to the panel.





Add or remove icons from the Quick Settings panel by dragging them from or to the *Drag to add tiles* section. Additional options available to you include location settings, cellular hotspot activation, screen casting, and the data saver feature. These will be covered in the *Using Google Android* chapter.

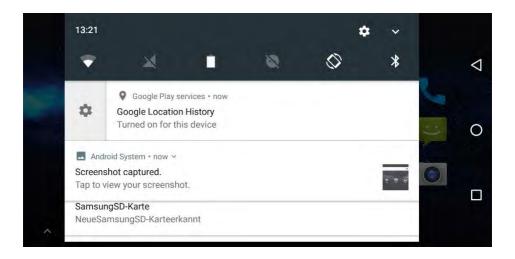




Beneath the Quick Settings panel you will see any Notifications that have come from your installed apps or the operating system. You can tap a notification to switch to the app or setting associated with it.

For example, tapping an email notification will open that email in your installed mail app.





To dismiss a notification, swipe it to the left or right of the screen. You can also tap the **CLEAR ALL** option below the notifications to remove all notifications together.

If you swipe a notification partly to the left or right, you will see a Settings icon. Touching this will display notification options, but ones that only affect that specific notification type or app. These include...

- Show notifications silently by displaying the notification for you on screen, but not making an alert sound
- Block all notifications if you do not want that type of notification, or that app to display notifications



• **Don't block or silence** - to allow notifications to display on your screen and play alert sounds

Below these options, the More Settings link will take you to the app's full settings, where you can control other aspects of its interactions with you, such as permissions. We will cover these in the *Using Google Android* chapter.



# USING THE GEMINI AS A

# **PHONE**

There are two different versions of the Gemini PDA, the Wi-Fi only version, and the 4G version. The latter comes with full cellular capability and can easily be used as your primary or secondary phone.

### THE PHONE APP

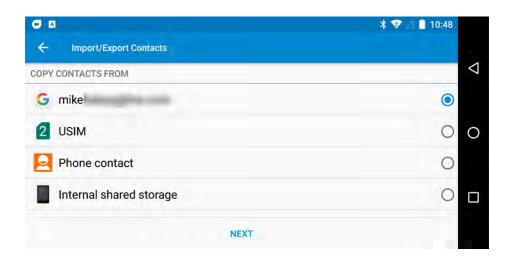
You can make and receive phone calls with the Gemini both open and closed. To start a call, open the *Phone* app on the Home screen and you will see three panels that you can move among them by swiping to the left or right.

### **IMPORTING CONTACTS**

If you do not store your contacts in a cloud service such as those run by Google or Microsoft, you can import them manually from your SIM card, or from a vCard contacts files stored on a MicroSD card or transferred to your Gemini from a PC or Mac.

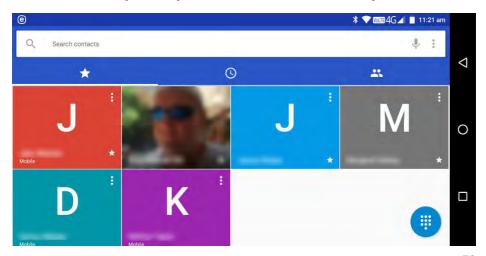
From the contacts app main screen tap the menu icon in the top right of the screen and then click *Import / Export*. You can then choose where to import your contacts from.





#### **FAVOURITE CONTACTS**

The first of these panels, highlighted by a Star icon (\*) contains thumbnail images for the people you have marked as favourites, or who have called you, or you have called most recently.

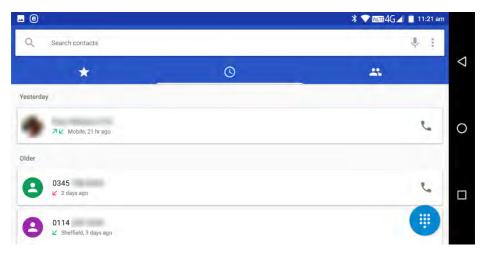




You can tap any thumbnail to call that person on the number that was used for them last. To call them on a different number, or to perform another action such as sending them an SMS text message or email, tap the menu icon in the top right corner of the thumbnail. This will display the person's contact details in a pop-up panel, from which you can choose additional functions or options. Managing contacts and adding favourites is covered later in this chapter.

#### **CALL HISTORY**

The call history can be found under the clock icon ① and contains a list of all the calls you have made and received. Tap one of the numbers and a fly-out menu will appear containing options such as saving a contact for that number, sending an SMS message, or viewing more details of the last call.





### **PEOPLE PANEL**

The *People* panel, signified by the icon is where you can find all of your contacts. These appear in a vertical scrollable list, with an add new contact icon in the bottom right corner of the screen. We will cover creating and managing contacts later in this chapter.

#### TIP

In the bottom right corner of the screen when viewing the Favourite Contacts or Call History panels you will see a dialler icon which will display a phone dial pad when tapped.

# MAKING AND RECEIVING CALLS

You can make and receive calls with the Gemini both open and closed. There are several ways in which you can perform these actions.

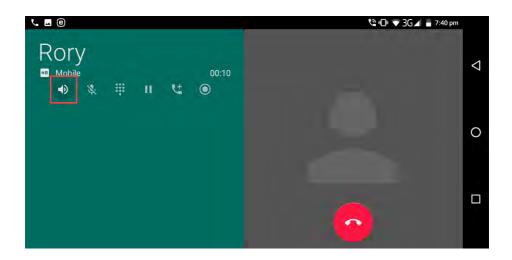
### MAKING A HANDS-FREE CALL

You can make a hands-free (speakerphone) call with the Gemini open by tapping the *speakerphone* icon () near the top left of the screen once a call has been initiated.



#### TIP

You can force the Gemini to *always* answer calls in speakerphone mode by opening *Settings*, visiting *Gemini Settings* and activating the *Answer call in speakerphone mode* switch. Note that this will still use the speakerphone if you use a Bluetooth headset, or use the Gemini closed by holding it to your head.



### MAKING A BLUETOOTH OR WIRED HEADSET CALL

You can use a wired or wireless (Bluetooth) headset that has a microphone built-in to make and receive calls, and when you have a headset attached, any call will be automatically played through it. We will detail how to connect a Bluetooth headset to the Gemini shortly.



### MAKING A CALL WITH THE GEMINI CLOSED

Once a call is initiated you can close the Gemini at any time and hold it to your face to make a call. The Gemini doesn't mind which way up you hold it as there is a microphone and speaker at both ends of the Gemini case.

To Make a Call with the Gemini closed press the *Voice Assistant* button on the right side of the Gemini and tell the Voice Assistant to make a call, for example you could say "Call Robin Parker".

To answer a call with the Gemini closed press the *Voice Assistant* button once. This will initiate the call and enable you to talk with the case closed.

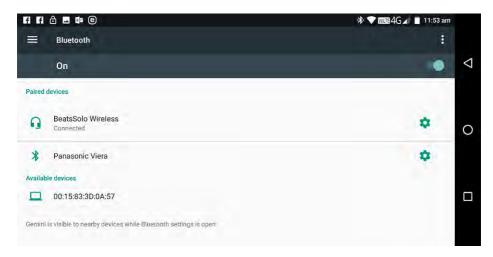
To end a call with the Gemini closed, just press the *GoogleError!* **Bookmark not defined.** Assist button once.

# CONNECTING A BLUETOOTH HEADSET

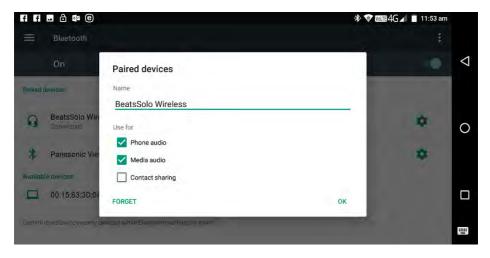
You connect a Bluetooth headset to the Gemini by opening Settings and navigating to *Bluetooth*. You need to activate Bluetooth if it is not already switched on, which you can do by tapping the switch near the top right-corner of the Bluetooth settings screen.

With Bluetooth enabled, the Gemini will begin to search for Bluetooth devices, tap the pair button on your headset and wait for it to appear in the list of devices on the Gemini.





Once your Bluetooth headset is paired you can tap the *Settings* icon to its right to access additional settings. These include activating or deactivating phone and media audio and if your headset includes an -in-built screen for contact sharing.





## SETTING ALERT LEDS FOR CALLERS

You can open the *LEDison* app on the Gemini to configure the five alert LEDs that sit on the top-centre of the Gemini case. You can configure different light patterns that will display when you receive a call. This enables you to see at a glance who is calling you with the Gemini closed.

The different alert patterns are displayed in a scrollable list, and to their right is an example of how the light pattern will display. Next to those are two icons, the *Play* icon and an *Options* icon. The Play icon will play the alert pattern on the outside of the Gemini.



Tapping the *Options* icon will display various options for that alert pattern...

• Edit allows you to edit that alert LED pattern

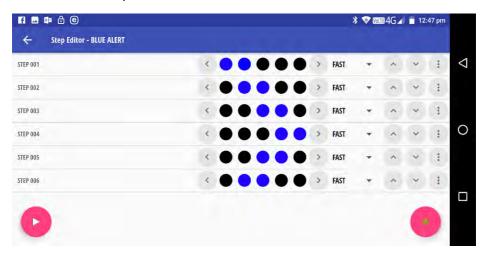


- Duplicate will create a copy of the LED pattern
- **Delete** will delete the LED pattern
- Copy makes a copy that you can then paste using...
- Paste Below which pastes your copied LED pattern below the currently selected one
- Rename allows you to change the name of an LED pattern

Below these is an add button  $\oplus$  that you can tap to create a new alert LED pattern.

### CREATING AND EDITING AN ALERT LED PATTERN

When you create or edit an alert LED pattern you will see the pattern listed as a series of *Steps* (Step 001, Step 002, Step 003 and so on). Each step has several controls.



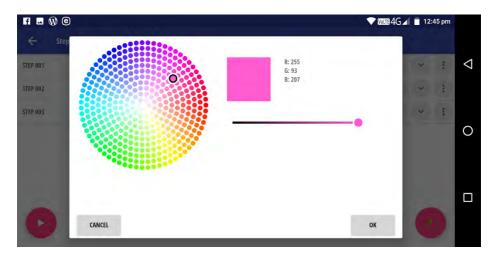


- The left and right arrows will slide the light sequence (shown between the left and right arrows) to the side in the direction chosen.
- Slow, Med, Fast, V Fast changes the speed at which the lights in that step are displayed from Slow to Very Fast.
- The up and down arrows move that step upwards or downwards in the list, changing the step order.
- The Options icon opens additional options for that step, including *Duplicate*, *Delete*, *Copy*, *Paste Below* and *Insert* new.

Additionally, you can tap the Add new step  $^{\scriptsize\textcircled{+}}$  icon to add a new step at any time.

To change the colour of any one of the LEDs, tap the coloured dot representing the LED you wish to change, and a colour-picker will display of a circle displaying all the available colours. You can choose a colour by tapping one, or by dragging your finger around the circle until you reach the colour you like.





To the right of the circle is a box displaying the currently-selected colour with its RGB colour code. Below this is a brightness slider which, if moved all the way to the left, turns the LED off for that step.

### ASSIGNING AN ALERT LED PATTERN TO A CONTACT

Once you have configured the alert LED patterns as you want them, you can assign them to contacts. To do this, from the main LEDison screen, tap the menu icon in the top-right of the screen, and from the menu that appears tap *Caller-ID Animations*.

The Caller-ID Animations panel has several different sections to it.





- At the top left of the panel is a switch that globally activates or deactivates the caller LEDs.
- Below this is a *Default[s]* section in which you can select the
  default LED patterns for withheld, and unknown callers, and
  for contacts you do not assign an LED pattern to. You can
  also select a *No animation* option if you do not want the
  alert LEDs to illuminate.
- On the left is a scrollable list of all the contacts in your Gemini. There is a *Group contacts by name* which you can select if you have contacts that appear more than once in the list. In the bottom left corner of the screen is a search icon, to help you find contacts.



 When a contact is selected, their name and phone number will appear in the main panel on the screen. Here you can select the *incoming* and *in progress* LED patterns.

## MANAGING CONTACTS

You can view and manage contacts either through the contacts list

### NOTE

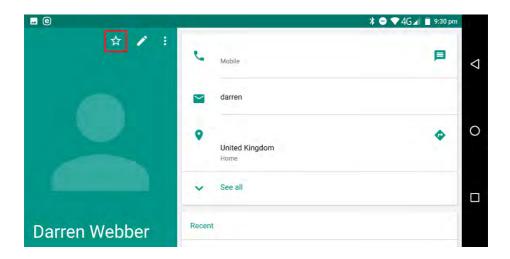
In Progress LED patterns will display on the outside of the Gemini during a call. You can set an all black [off] light pattern if you do not want LEDs displaying during a call.

in the *Phone* app, or in the dedicated *Contacts* app. Contacts are presented in a list, and you can click on any contact to view the details you have for them.

You can add a new contact from the main contacts screen at any time by tapping the *Add contact* button in the bottom right of the screen.

You can edit a contact at any time by tapping the *Edit* icon. The details you can add for a contact include the name, home, work, and cellular phone numbers, address, email, company, birthday, and website.





If you tap the *Options* icon you can place a quick-access icon to the contact on your Home screen, as well as delete the contact or share it with other people via email, SMS, or messaging.

# USING THE GEMINI eSIM

### TIP

You can make a contact a *Favourite* so they always appear in the favourite callers panel of the phone app, by tapping the  $Star \bigstar$  icon near the top left of their contact details page.

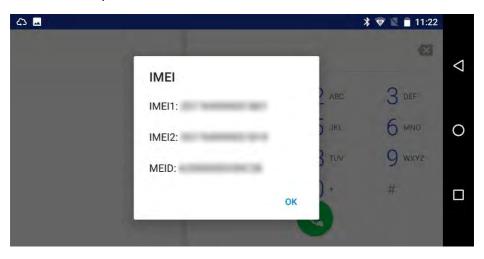
The 4G version of the Gemini PDA comes with an embedded SIM (eSIM) card. This is a relatively new cellular communications



standard that means your SIM card stays with the device, and you only have to give the IMEI number to your cellular provider.

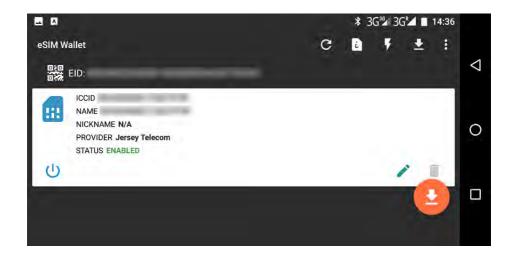
Not every cellular operator supports eSIM technology, though the number is expanding. Your eSIM IMEI number can be found on a label under the top cover of the Gemini, to the left of the camera and SIM slots.

You can also obtain your IMEI number(s) at any time by typing **\*#06#** at the phone dialler.



You can manage your eSIM and any cellular account assigned to it in the **eSIM Wallet** app, this app allows you to set and assign accounts and profiles to your eSIM and use it for data and calling.



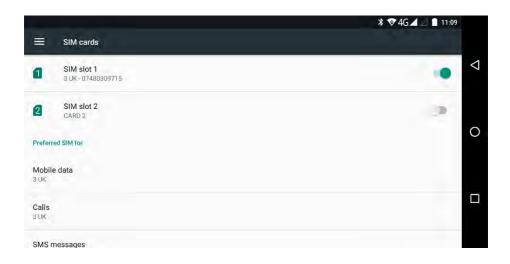


### MANAGING THE SIM AND eSIM FOR CALLS AND DATA

When you are using both the SIM and eSIM on your Gemini you can manage which is used to calls, and which is used for data. As an example, when travelling abroad you may want your existing SIM card to be used for calls, so that you're contactable from home, and the eSIM to be used for data.

You can manage this in *Settings > SIM cards* where you can activate and deactivate both the SIM card (SIM slot 1) and the eSIM (SIM slot 2), and choose which is used for each of mobile data, calls, and SMS messages.









# USING THE GEMINI AS A PDA

The Gemini is, first and foremost, a productivity-focused device that helps you create content (as you would on a PC or Mac) rather than consume it (which is the role of a smartphone or tablet). The Gemini also makes being productive as simple as turning the device on and getting started... so let's get started!

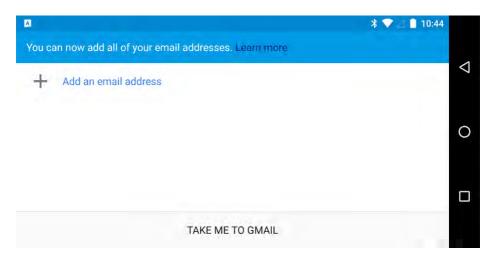
### SETTING UP EMAIL ACCOUNTS

Email is here to stay; some people might prefer to communicate via instant messaging platforms such as WhatsApp or Slack, but email still forms the backbone of everyday and business communications.

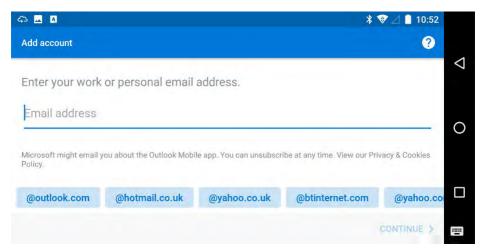
Setting up email on the Gemini is a simple matter. Once you have decided which email app you wish to use, the in-built Gmail, Microsoft Outlook, or the K9 Mail app that's pinned to the Gemini app bar, you will be promoted to set up your email account the first time you run it.

For example, the Gmail app will ask you to add an email address, it supports Google, Microsoft, Yahoo, Office 365 and manual setups if, for example, you run your own email server.





Microsoft's Outlook app will also prompt you to enter the settings for your email address when you run the app for the first time. It supports all the email account types that the Gmail app does, and makes it easy to get started sending and receiving email.





### MANAGING ACCOUNTS ON THE GEMINI

If you later need to manage your accounts, such as to change a password, or to add a new account, you can do this in *Settings > Accounts* where you will see a full list of all the accounts you have configured on the Gemini.



You can tap on any account to view details about it, remove it from the Gemini, amend settings and passwords, or perform additional actions that may be relevant to that account.

# THE GEMINI AGENDA APP

The Gemini PDA comes with a dedicated Agenda app called *Agenda*. This is a calendaring and to-do app that will be instantly recognisable to anybody who owned a Psion Series 5 PDA in the late 1990s. Agenda comes with six views...



### THE DAY VIEW

Agenda opens with the day view. This view displays any appointments and anniversaries you have on that day, in addition to any To-Do items that are due on that day.



To move backwards and forwards between days in the day view, press *Fn* + *the left and right cursor keys* on your keyboard



### THE WEEK VIEW

The week view is separated into two different panels. In the main view it displays any calendar appointments and anniversaries you have booked, and any To-Do items that are marked for a day that week.



Additionally, a small panel near the top centre of the week view displays the current week number, the number of To-Do items you have due that week, and the number of anniversaries that week.

Weather is available to view in this panel and can be configured in the Agenda app settings. You can swipe left and right with your finger to view additional days.

You can move back and forward between different weeks in the week view by pressing *Fn + the left and right cursor keys*.



#### TIP

You can change the size of the text for entries displayed in the week view by pressing *Ctrl + the left and right cursor keys*. This can help you view days that might have a lot of appointments.

### THE MONTH VIEW

The month view is split into two panels. The left panel is scrollable and displays the remaining days of the month, with any calendar appointments, anniversaries, and To-Do's listed.



The right panel displays any calendar appointments, and anniversaries as coloured bars. The length of the bar indicates the start time and duration the each event, with a full-wide bar indicating an all-day event or an anniversary. The current day is

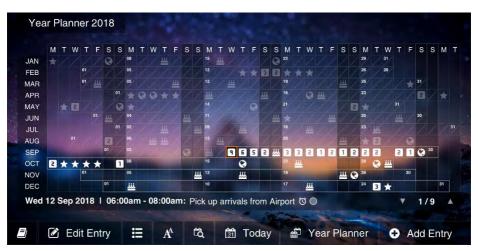


highlighted with a different colour box, and weekends are shaded to make them more visible.

You can move backwards and forwards in months by pressing *Fn + the left and right cursor keys*.

### YEAR PLANNER

The year planner displays a calendar for an entire year with numbers in each day representing how many calendar entries and anniversaries (not To-Do entries) you have for that day.



Near the bottom of the screen between the year view and the menu bar you will see details of the appointments you have that day, including their date, start and end time, and description.

You can move back and forward in years by pressing *Fn + the left* and right cursor keys.



### TO DO LISTS

The To-Do screen consists of two panels. Your To-Do lists will appear in the left panel, while individual To-Do items will appear in the right panel. You can set as many different To-Do lists as you need (for example, work, home, school etc.), and create and delete new lists with the Ctrl + L and Ctrl + D keyboard shortcuts. Ctrl + T can be used to create a new item in the currently displayed list.

#### TIP

You can switch between the appointments and anniversaries for the currently highlighted day in the year view by pressing *Shift* and the up and down arrow keys on the keyboard.





You can optionally choose To-Do items to appear in or be hidden from your different Agenda views. This can help keep some To-Do items (such as collecting that Tiffany ring for your partner) secret and hidden away, though they will always be visible in the To-Do view.

### TIP

You can create a new To-Do item at any time within Agenda by pressing *Ctrl + T* on your keyboard.

Each To-Do item has a check box to its left. You can tap this to mark an item as either completed or pending.



#### **ANNIVERSARIES**

The anniversaries view displays the current month with the next three months and shows any events that are marked in your calendar as anniversaries, such as birthdays.

#### TIP

Each To-Do entry is presented in the day and week views with a box to its left. You can tap this box to mark the item as complete. This does not remove it from your To-Do list, though it does allow you to see which tasks are complete, and which still need to be completed.



This view does not include anniversaries that are marked as national holidays, such as commemorative events you may wish to remember.



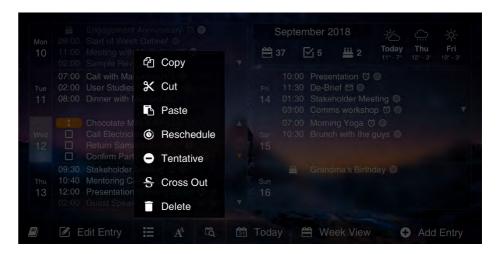
### USING THE AGENDA TOOLBAR

Along the bottom of the Agenda app is the toolbar, containing all the controls and options you need to use the Agenda app, and to create and manage your appointments, anniversaries and to-do items.

The options available on the toolbar are...

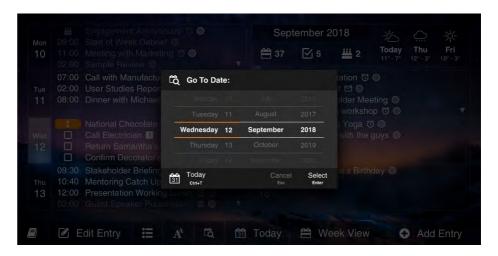
- Settings, this is where you can manually synchronise your calendar, search for agenda items, choose which calendars on your Gemini are displayed, and access additional preferences such as adding and removing calendar accounts.
- **Edit entry** will allow you to edit the currently highlighted Agenda entry, more on this shortly.
- Options displays editing options for Agenda entries including cut, copy, and paste, rescheduling appointments or marking them as tentative, crossing out entries while leaving them visible in the calendar, and deleting Agenda items.





- Zoom allows you to use a horizontal scroll bar to change the size of text in different views of the app.
- Go to Date lets you choose which date in your calendar you wish to jump to. Days, months, and years are presented in vertically-scrolling menus. When you have selected the date you wish to jump to, press *Enter*.





- Today will jump automatically to today's date in the Agenda view.
- View will let you switch between the different Agenda views, day, week, months, year planner, to do lists, and anniversary.
- Add entry is where you can add new day entry, to-do, events, or anniversary items, more on this shortly.

### ADDING AND EDITING AGENDA ENTRIES AND TO-DO ITEMS

When you *Add (or Edit)* an Agenda entry an overlay entry will appear above the current view. The options available here will vary depending on what type of entry you are adding or editing (calendar, to-do, event, anniversary) but the options remain broadly the same for each one.



When you are editing the text description for the item you will see a text decoration panel appear to the right of the screen. This contains quick controls that allow you to change the look of the entry in your calendar (bold, italic, underline, strikethrough) and the colour of the entry (there are 12 colours to choose from). These options can help you emphasise Agenda items.



Setting the start, end, or due date for an item will display a calendar menu to the right of the screen containing *day, month* and *year* tabs. These allow you quickly set the date for an item without needing to type on your keyboard.





Similarly, when you set the start or end time, or duration for an item a clock will appear to the right of the screen that allows you to set the correct time by swiping the hand clockwise, or anticlockwise.

#### TIP

You can use keyboard shortcuts when adding or editing an entry.

Fn + down cursor jumps to the row below

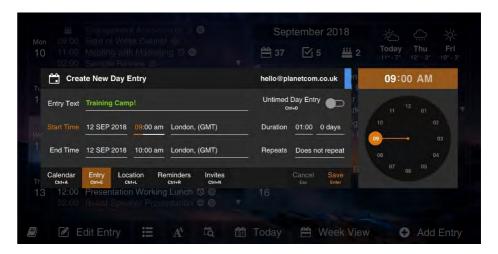
Fn + up cursor jumps to the row above

Ctrl + left / right cursor toggles between tabs

**Up, down cursor** to change time, time zone, or date

You can also tap a calendar name to switch between different calendars.



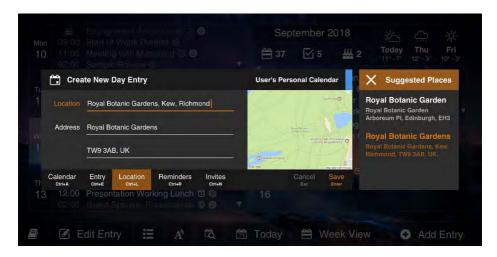


Below the editing panel are options to select a *location* for the event, and to set *reminders* and *invitations* for the event.

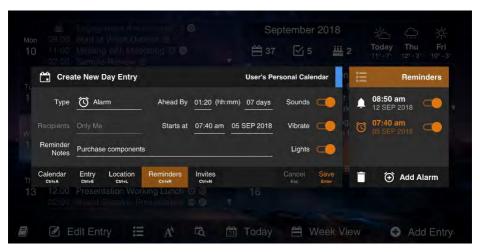
The *Location* options allow you to search for a place by street address. It will display in real-time search results by address and also display a map with the location highlighted.

You can type a full address, or a business or organisation name to search. The search system uses Google maps, which already includes the full names and addresses of millions of businesses and organisations worldwide.





The *Reminders* options let you set alert reminder options for an event. This includes when the reminder should occur, how many reminders you wish to set (you can set more than one per Agenda item), and if the reminder should trigger an alert sound, vibrate the Gemini, or activate the top cover LEDs.





You can invite people to an event, such as a meeting, in the *Invites* tab. Search for the name of a person, company organisation and search results from within your contacts will appear in the right panel. There is also a switch that can allow invited guests to invite more people.



### LIST OF AGENDA KEYBOARD SHORTCUTS

**Ctrl + right cursor** - zoom into the current view

Ctrl + left cursor - zoom out of the current view

**Ctrl + S** - toggle between different views

Ctrl + T - add a to-do list item

Starting to type at any time creates a new entry in any view

Pressing Enter on any entry will open it for editing



Pressing **Del** on an entry will delete it (with confirmation)

**Fn + right cursor** - jump to next period [week, month etc.]

Fn + left cursor - jump to previous period [week, month etc.]

Up, down, left, right – to navigate through entries

Swipe left / right in weather panel to view additional days

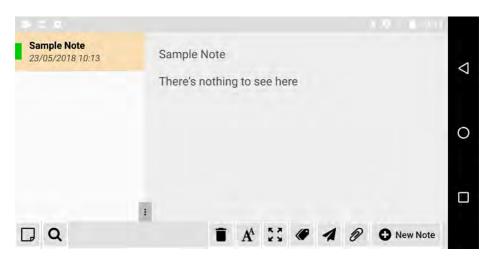
Ctrl + X, C and V – cut, copy and paste (keeps time, changes date)

# TAKING AND SORTING NOTES

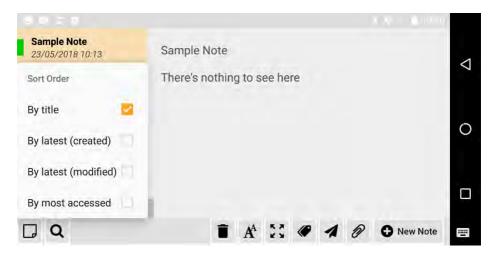
The Gemini comes pre-installed with its own Note taking app, *Notes.* This presents a straightforward and easy to use interface for taking, sorting, and editing notes on the move.

The main Notes screen is separated into two main areas, the left panel displays the list of notes stored, while the right panel displays the contents of the currently selected note. You can expand (and contract) this right side panel to fill the whole screen by pressing the contents on the toolbar.



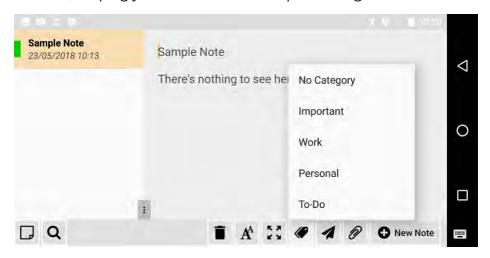


In the left corner of the toolbar is an options icon,  $\square$  which will display a menu inclduing options to backup and restore your Notes from Google Drive, and sorting of notes by title, date, or frequency of access.



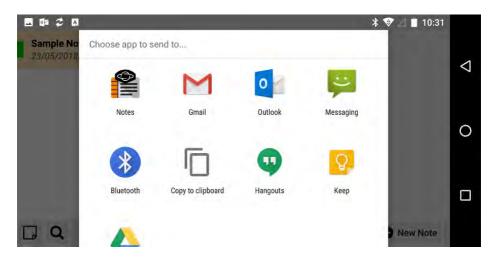


The toolbar contains other useful functionality, such as the *Categories* button,  $^{\textcircled{2}}$  that allows you to assign different categories to notes, helping you sort them and keep them organised.

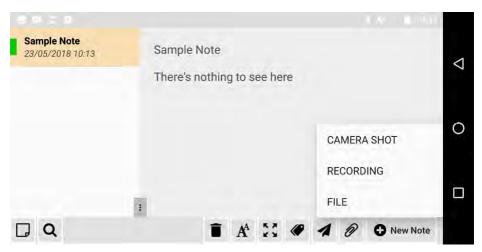


The *Sharing* icon, represented by a paper plane, lets you share notes with any installed app on your Gemini that supports the Android sharing functionality. This includes being able to send notes directly to friends and colleagues as an email or private message.





Lastly, you can attach items such as photographs, voice recordings, and files to notes using the *Attach* button,  $\mathcal{O}$ .



Adding a new note is as easy as tapping the **New note** button, when you will see a new note appear highlighted in the left panel, ready for you to give it a name and edit it in the right panel. You can

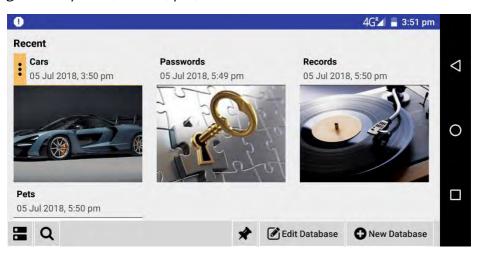


delete a note equally easily by highlighting it in the left panel, and tapping the delete  $\stackrel{=}{=}$  icon.

## STORING AND MANAGING DATABASES

The Gemini comes with a database app, called *Data* that is a flat-file database system used for storing, organising and retrieving information on the move.

The main screen displays thumbnail images for all your created databases, with menu options across the bottom of the screen for *general options, search, pin, edit database* and *new database*.



When you create or edit a database you can choose what labels (fields) you wish for it to have, how the records are sorted, if the

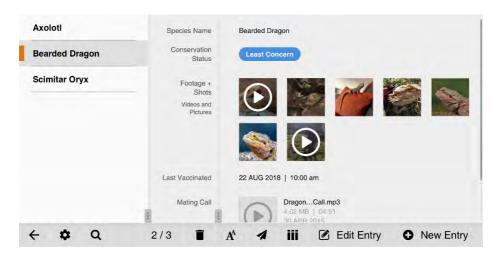


database is password protected, and what its name and cover image should be.



The database view is based around a two-panel display, with the left panel showing the records stored in the database, and the right panel displaying the information stored in the currently selected record.





You can change the sizes of these two panels by dragging the size slider ! left and right. At the bottom of the screen are menu options including back, search, delete, change view, edit entry and add entry.

# USING CLOCKS, ALARMS, AND WORLD TIME

As with any productivity device, the Gemini includes all the clock, timer and alarm functions you could ask for. Running the *Clock* app from the all apps view will display the current time and date along with four icons across the top of the screen...

- Alarms is where you can set and manage multiple alarms on the Gemini
- Time returns to the main screen, and displays the current time and date, along with any world times you have pinned



- Timer lets you set a countdown timer in hours, minutes, and seconds
- Stopwatch allows you to use your Gemini as a stopwatch, perhaps for researching presentation timing

At the bottom centre of the main clock page is a *world time* button. Tapping this displays a list of cities from around the world. A search icon appears in the top left of the screen to let you find cities quickly.

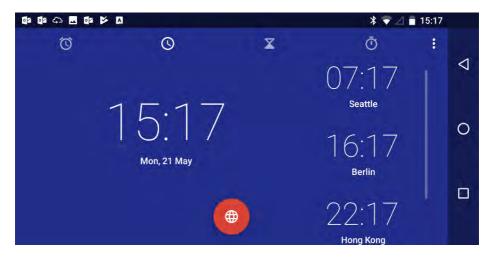


You can check a city to add it to the main clock screen, and you can have multiple world times pinned to this screen.



#### TIP

Some home screen launchers and home screen widgets have clocks on them that open the *Clock* app when tapped and that may support the display of alarms and world times.



When you set an alarm in the *Clock* app you will see the hour and minutes displayed to the left-centre of the screen with one highligted. You can tap each one to highlight them individually, and use the circular dial to change the time you wish to set your alarm for.



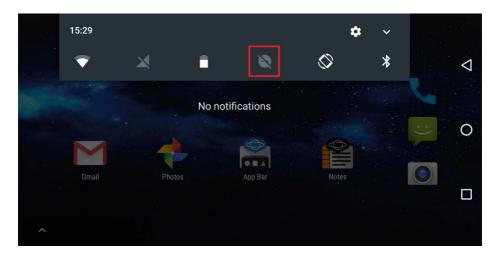


# USING DO NOT DISTURB MODE

When you're working you very commonly don't want, or need to be disturbed, and so the Gemini comes with a helpful *Do Not Disturb* mode. You access this by swiping downwards at any time from the top of the Gemini screen to display the notification and control panel.

The *Do Not Disturb* icon is a circle with a diagonal line passing through it, as seen in the screenshot below.

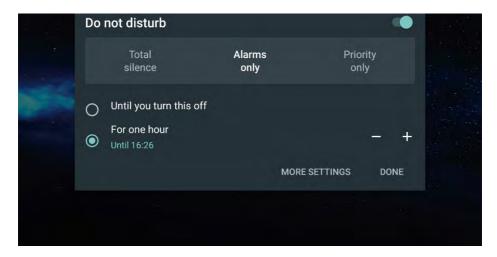




Activating Do Not Disturb mode presents several options...

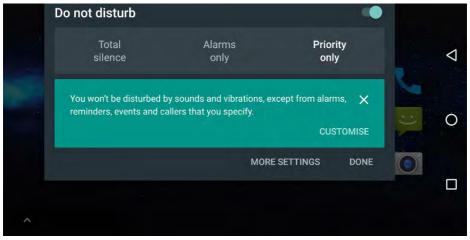
- **Total silence** silences everything on the Gemini, including alarms, notifications, and incoming calls
- Alarms only silences everything except alarms, this can be useful for setting at night
- Priority only allows alarms, and calls and messages from preferred callers, such as family or friends





You can choose for *Do Not Disturb* mode to run *Until you turn [it] off* or for a period between 15 minutes to 12 hours.

Tapping *More settings* takes you to a settings panel in which you can choose what is and is not allowed during a *Priority only*, and this is also where you can configure *Automatic rules*.

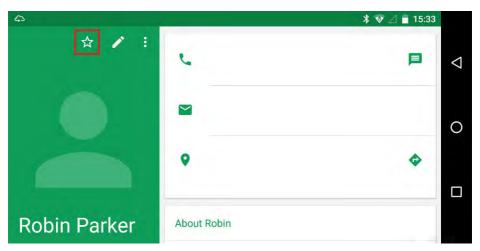




Automatic rules can be set to turn *Do Not Disturb* mode on and off at specified times, such as each night, on weekends, and during an appointment you have accepted in your calendar.

When in *Priority only* mode you want to have control over who is allowed to contact you and who is not. You can achieve this in the *Contacts* app, available through the all apps view. Each contact has a *Star* icon near the top left corner of the screen.

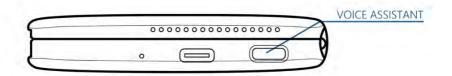
Tapping this icon will toggle the contact between priority and normal, so you can set, for example, your close family or employer as priority. This means that when your Gemini is set to *Priority only* mode, the Gemini will still sound and alert you when these preferred contacts call and message you.





## USING THE VOICE ASSISTANT

On the right side of the Gemini is a silver button. Pressing this will invoke the Voice Assistant. You can use this feature at any time, even with the Gemini closed.

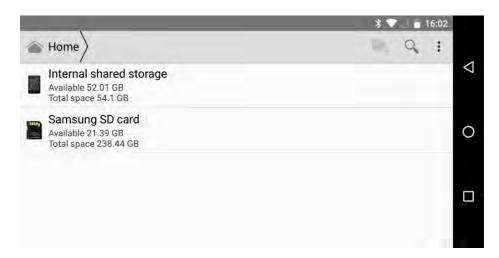


The Voide Assistant is a voice service to which you can ask questions such as "What's the highest mountain in the Himalayas" or commands like "Call Peter Adams". The functionality for Voice Assistant is being expanded regularly, and you can read more about this feature online at https://Assistant.google.com.

## MANAGING DOCUMENTS AND FILES

The *File Manager* app exists to help you manage your files and documents on your Gemini. It displays the contents of both the 64GB internal storage on your Gemini, in addition to any MicroSD card you have installed.





Items are selectable in the File Manager by touching and holding them, at which point you will see option icons appear in the top left corner of the screen. These include *Share, Copy* and *Cut* (once an item has been selected a *Paste* icon will appear. Additional options are available by tapping the *three dots* icon, such as *Delete, Rename* and *Details*.





In the main storage for your Gemini you will see familiarly named folders, including *Download, Music* and *Pictures.* The *DCIM* folder contains photographs captured using the Gemini's internal camera, or the add-on camera module.

## **USING MICROSOFT OFFICE**

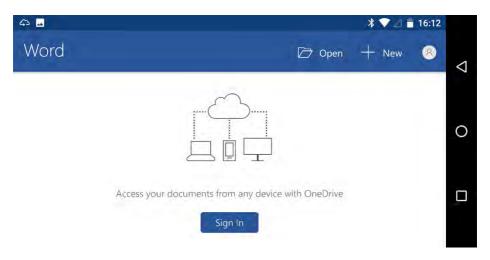
The Gemini comes with quick links to Microsoft Office and Excel pinned to the App Bar. These are quick links to the apps in the Google Play Store, and are part of Microsoft's Office 365 suite that also includes mobile versions of PowerPoint and OneNote.

The mobile versions of Microsoft Office are not as fully featured as their desktop counterparts, but they do support all the features of Office documents created on a PC or Mac.



Normally, Microsoft do not allow the creation of new documents in the Office Mobile apps, unless the device the app is installed on has a screen below 10.1-inches. This includes the Gemini, meaning that new Office documents can be created on the move.

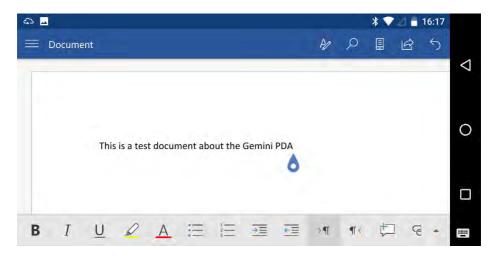
To get the very best from Microsoft Office you will need an Office 365 Personal, Home, or Business, or a Microsoft 365 Account. You can find out more about Office 365 at www.Office.com.



When you start using Word or Excel you are prompted to sign in using your Microsoft, or Azure AD account; this will unlock all the functionality of the Office apps on your Gemini and will only have to be done once.

The Office apps have two toolbars, one at the top of the screen and one at the bottom of the screen. The top toolbar contains a Hamburger menu in the top left corner from which you can create, open and save documents.

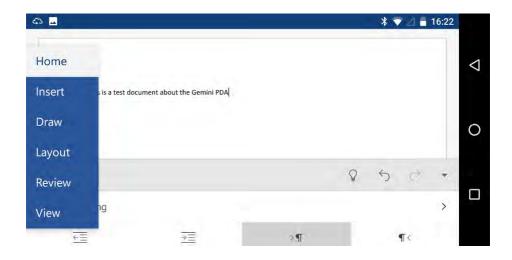




The top right corner contains icons for functionality such as searching and saving a document and undoing a recent change.

The bottom menu contains common formatting options for your document. In addition, there is an up (^) arrow to the right of this toolbar. When this is tapped additional options will appear, such as allowing you to choose from different *Tabs* of the Office ribbon. You can also scroll up and down in the new expanded panel that appears at the bottom of the screen to select additional tools and formatting options.





## ADDING USERS TO THE GEMINI

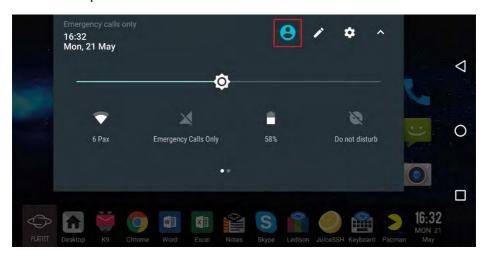
Sometimes you might want to add different user accounts to the Gemini, perhaps so a child or partner can use the device without getting access to, or interfering with your accounts and files.

#### **TIP**

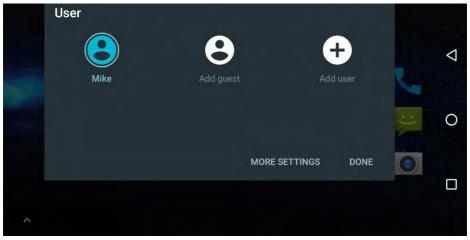
With some apps it can sometimes be useful to rotate the Gemini screen to see every option available. You can do this by pressing the key to display the App Bar, then pressing the logo on the App Bar itself, followed by **Force Rotate**. The screen will rotate back to landscape when you next press the key.



You can add users to the Gemini most easily by swiping downwards from the top of the screen *twice* to reveal the *Users* icon.



Tap this icon to be taken to a new screen where you manage, remove, and add user accounts to your Gemini. Tap *Add user* to add a user account to the Gemini.





If on the other hand you just want somebody to be able to use the Gemini temporarily, you can tap the *Add guest* icon to switch the Gemini into Guest mode. This enables them to use installed apps without getting access to your accounts and files.





# **USING GOOGLE ANDROID**

The Gemini PDA runs Google's Android operating system, which is used on most smartphones worldwide. It's highly customisable and secure, but this can present challenges in setting it up correctly and getting it to operate the way you want.

## **GETTING STARTED WITH SETTINGS**

You can access Android's settings in several ways. Perhaps the easiest is the Fn + (Del) key combination, however you will also find a Settings icon in the *All Apps* list by pressing the (18) icon on the home screen.

Android's settings are separated into different categories that appear in a vertical list on your screen.

- Wi-Fi is where you can view and connect to Wi-Fi networks
- Bluetooth allows you to turn the Bluetooth radio system on, connect to and manage Bluetooth devices, I detailed how to connect to and manage Bluetooth devices in the Using the Gemini as a Phone chapter
- Data usage is where you can view and manage your cellular and Wi-Fi data usage



- More offers additional communication settings, such as Airplane mode, and virtual private network (VPN) options
- Gemini Settings includes options specific to the Gemini, including if the App Bar appears when you open the case, and if opening the Gemini returns you to the last app you were using, or the desktop
- Display contains settings for your Gemini's screen, and connections to external screens
- Notifications is where you can control pop-out and audio notifications from apps and the operating system
- **Sound** is where you can change ringtones, alarm and alert sounds, volume, and vibration
- Apps lists all the apps installed on your Gemini and allows you to manage their permissions, more on this shortly
- Storage is where you can view how much space is available (for things like files, photos and music) on your Gemini and on any installed MicroSD memory card
- Battery will display battery usage details for your Gemini, and is where you control features such as Battery saver
- Memory Is where you can view how much of your Gemini's memory is in use, and by which apps. Memory is not to be confused with storage, as apps run in it, but are not installed into it



- **Users** is where you can view, create, and remove user accounts from your Gemini
- DuraSpeed these settings can help boost the performance of the app you are currently using, by restricting processor usage for the apps running in the background
- Location is the settings associated with GPS, Assisted GPS (which also uses Wi-Fi and Bluetooth to determine your location), and any apps that use location services
- **Security** is where you can manage the settings for signinginto your Gemini, such as your password, pin, or pattern lock, I detail these in full in the *Security and Backups* chapter
- Accounts are settings associated with third-party accounts you may be using on your Gemini, such as those for Microsoft, Apple, DropBox, or a Social Network
- Google contains settings associated with your Google
   Account if you are signed into the Gemini using one
- Languages & input is where you can change the display and keyboard language for your Gemini, and control features such as text-to-speech accessibility
- Backup & reset contains settings to automatically back up your Gemini settings to the cloud, and is where you can Factory reset your Gemini if you are selling it, or giving it to a friend or family member

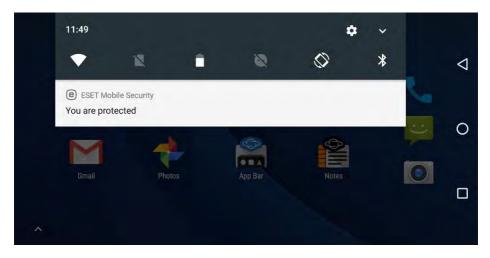


- **Date & time** are the settings for the current date, time, and time zone
- Accessibility contains settings that can make your Gemini
  easier to use. I detail these in the Making Android more
  accessible, and easier to use chapter
- Printing is where you can install and manage printer service apps
- Developer options these are hidden by default, and provide administrator access, basically full control bypassing any security features, and unlocking hidden functionality used by app developers. If you really need these options you can turn them on by opening About phone and then tapping Build number seven times. Activating the Developer options can expose settings which, if not configured correctly, and compromise the Gemini's stability, security, and usability.
- Schedule power on & off allows you to set the Gemini to automatically switch on or off at specific times of the day, such as every night
- About phone contains information such as legal and regulatory information, and it is where you will find the settings for updating the installed operating system



## CONTROLING SETTINGS AND NOTIFICATIONS

If you swipe downwards from the top of your screen at any time you will see the Quick Settings panel. Here you can quickly control commonly used aspects of the installed Android operating system.



Along the top of the Quick Settings panel you will see the current date and time, a quick link to the full Android Settings, and a down arrow that reveals further options. The icons across the Quick Settings panel are...

**Wi-Fi** – Turns Wi-Fi on or off on the Gemini, but does not allow you to connect to a specific network. It will connect to any network in the vicinity that you have previously connected to. To connect to a new network open Settings, and then navigate to **Wi-Fi**.



**Cellular** – If you have a 4G Gemini the icon will display your signal strength. Tapping the icon will disable or enable your cellular connection.

**Battery**- displays your current battery level. Tapping the icon displays a graph showing your battery usage, and a quick activate button for the Battery Saver feature. There is more in this in the *Using Google Android* chapter.

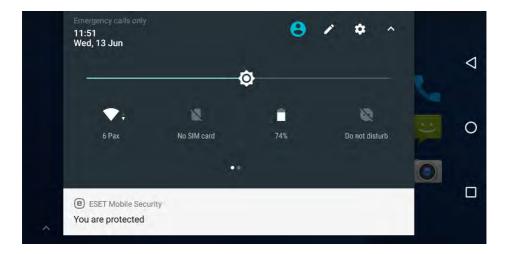
**Do Not Disturb** – allows you to activate various options that can silence notifications, calls, or alarms on the Gemini. This will be covered in the *Using the Gemini as a PDA* chapter.

**Rotate** - is a control to rotate the screen orientation, note this can be overridden by specific Gemini Settings.

Bluetooth - turns Bluetooth radio on or off.



Swiping downwards from the top of the screen again, of touching the small **down** arrow at the top right of the Quick Settings panel reveals further settings.



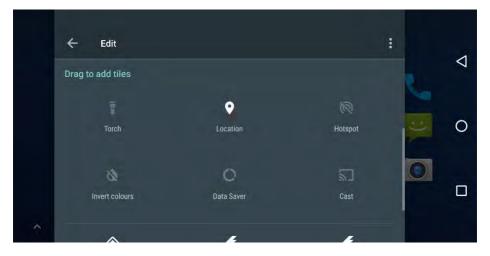
At the top of the Quick Settings panel you will now see additional options for adding and managing users on the Gemini. This is covered in the *Using the Gemini as a PDA* chapter.

The pencil icon allows you to customise the quick settings icons, so that you can move them around, or add more. At the bottom of the screen you will see a **Drag to add tiles** section. Drag this upwards to reveal additional Quick Settings options that you can add to the panel.



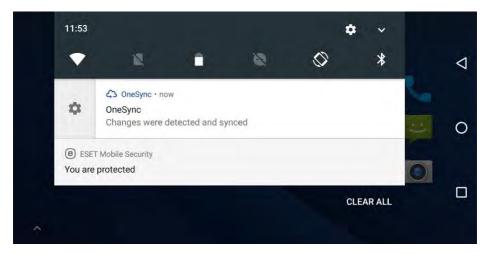


You add or remove icons from the Quick Settings panel by dragging them from, or to the **Drag to add tiles** section. Additional options available to you include location settings, cellular hotspot activation, screen casting, and the data saver feature. These will be covered in the *Using Google Android* chapter.





Beneath the Quick Settings panel you will see any Notifications that have come from your installed apps or the operating system. You can tap a notification to switch to the app, or setting associated with it. For example, tapping an email notification will open that email in your installed mail app.



To dismiss a notification, swipe it to the left or right of the screen. You can also tap the **CLEAR ALL** option below the notifications to remove all notifications together.

If you swipe a notification partly to the left or right you will see a Settings icon. Touching this will display notification options, but ones that only affect that specific notification type or app. These include...

**Show notifications silently** – by displaying the notification for you on screen, but not making an alert sound



**Block all notifications** – if you do not want that type of notification, or that app to display notifications

**Don't block or silence**- to allow notifications to display on your screen, and play alert sounds.

Below these options, the **More Settings** link will take you to the app's full settings, where you can control other aspects of its interactions with you, such as permissions. We will cover these in the *Using Google Android* chapter.

## **CUSTOMISING THE GEMINI PDA**

As is the case with all computing and mobile devices (with the only notable exception being the iPhone and iPad) you can customise the look and feel of the Gemini to suit the way you live and work.

While you can't change things such as the look and feel of individual apps, or the colour of the Settings panels (though many people wish you could) you can use a **Launcher** (also called the Home app) to change the home screen look and feel.

Search for Launcher in the Google Play store and you'll get thousands of results from making your Gemini look like something from a specific science-fiction movie, to mimicking an iPad. Below are two launchers you can use on the Gemini, the very popular Nova, and Smart Launcher.



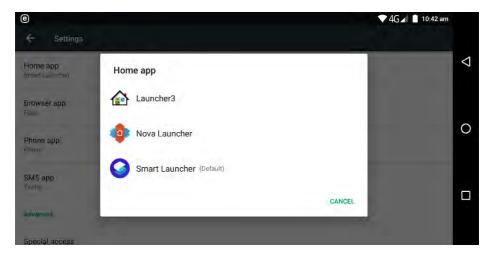




As you can see, both look very different from the launcher that comes pre-loaded on the Gemini. You can install a new launcher from the Play Store and when you run it, you will be prompted to choose which launcher you want to use from the default **Launcher 3** to the one you have just installed.



You can also switch launchers at any time, open Settings and search for either *Home* or *Launcher*. When you see **Home app** appear, click it and you can choose which of your installed launchers you wish to use.



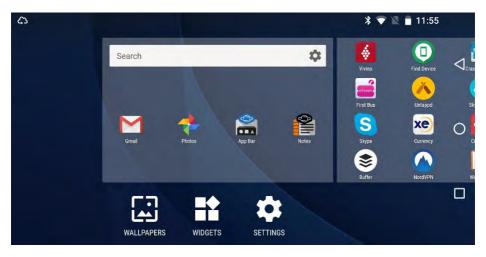
Once you have configured a launcher the way you want it to look, more on this shortly, you can switch to a different launcher and back again with it maintaining all of your chosen configuration options.

Depending on which launcher you use customisation will then work in varying ways, but the fundamentals will usually remain the same. These include...

 The launcher typically has two or three display 'panels' that you can switch between by swiping left and right on your screen. These allow you to have, as an example, your main apps on one panel, widgets (more on these shortly) on

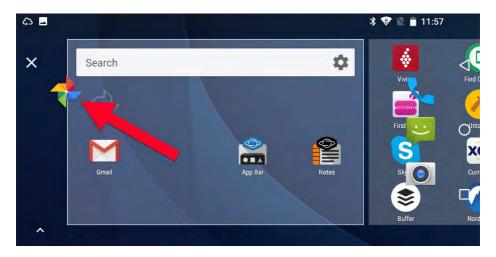


- another panel, and a grid of secondary apps on another panel.
- You touch and hold in any blank space on the screen to access the launcher options. These include adding or removing panels, changing the wallpaper, and adding widgets.



- You can drag icons around the screen to rearrange them, and drag icons to the far left or right of the screen to move them to or to create a new panel.
- You can drag and drop icons on top of one another to create icon groups.
- If you want to remove an icon or widget from the Home
   Screen, drag it onto the X icon near the top left corner of the screen.



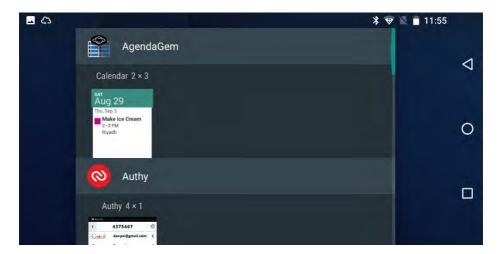


It can be worth playing around with the launcher on your Gemini for a little while to get the hang of what it can do, and how it works.

### **USING WIDGETS**

Widgets are active panels that display information from within an app. You can add them by touching and holding a blank space on the home screen and then clicking the **Widgets** icon that will appear (either in the screen or in a pop-up menu).



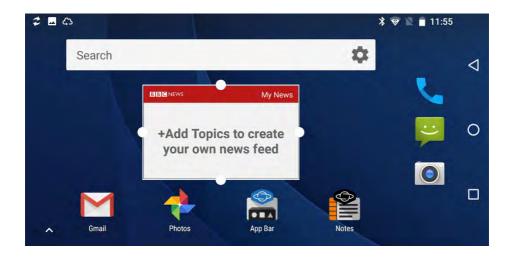


Many apps support widgets, and you will see a scrollable list of all those available on your Gemini with graphical representation of how they look.

Touch and hold any widget to drag it to where you would like it on your Home screen, or on one of your available panels, and then you will see live information whenever you return to that panel.

You can also resize and move widgets at any time by touching and holding them. This will display a border around the widget, with four dots (top, left, bottom, and right) that you can drag to make the widget taller, narrower, shorter or wider.





# MANAGING BATTERY LIFE

Technology moves inexorably forward every year, as processors become faster and more powerful, memory becomes faster and larger, storage becomes bigger and cheaper, and screens get higher resolutions and greater clarify.

As an example, the venerable Psion Series 5 PDA, on which the Gemini is largely based was released in 1997 has a processor that is considerably less powerful than the one found in the Gemini.

What hasn't changed very much in all this time though is battery technology. Certainly some advances have been made, but we can still often struggle to get through a working day before the battery dies.



There are things you can do on the Gemini however to maximise your battery life...

- Adaptive Brightness is controlled by a light sensor to the right of the Gemini's screen. It a simple setting found in Settings > Display > Adaptive brightness that automatically adjusts the brightness of the screen to suit the background illumination.
- Performance and power saving is found in Settings > Battery
  and can switch between normal (processor runs as the
  normal speed) and sports (processor runs at full speed and
  drains the battery more quickly)
- Intelligent power saving standby is also found in Settings >
   Battery and turns off unnecessary background tasks when
   your Gemini is closed and locked
- Battery saver is a feature that prevents apps and widgets from automatically updating (you can still update them manually) when the battery charge level reaches either 15% or 5%. It is also found in *Settings > Battery*
- Sleep can be found in Settings > Display and it is where you can choose how long the screen remains on when you are not using the Gemini. You can choose settings from 15 seconds to 30 minutes.
- **Battery optimisation** is found by searching in Settings for *battery*. Android automatically optimises some apps to make them more power-efficient, though communications



apps that download messages while the Gemini is asleep are generally *not* optimised, so as to allow them to work quietly in the background.

#### **BATTERY LIFE TOP TIPS**

There are other things you can do to maximise the battery life on your Gemini, here are our top tips...

- Don't close apps, as they can use more power being reopened than they will sitting in the background when they're not being used
- Connect to Wi-Fi networks if you have a 4G Gemini, as this
  uses less power than a cellular data connection
- Uninstall unwanted apps as they can sometimes run in the background, using battery power unnecessarily
- Games can drain your battery quickly as they use a lot of processing power, so keep gaming to a minimum if you need your battery to last
- Don't use widgets on your Home screen, as they regularly update themselves, using power you might not want them to use
- Activate Airplane mode in low signal areas, the Gemini can
  use a lot of power trying to latch on to a 3G or 4G cellular
  signal. If you know the signal is poor or unavailable,
  switching on Airplane mode will save quite a bit of power

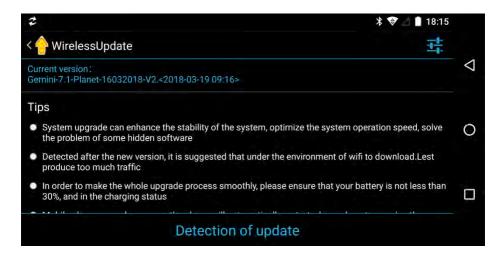


- Activate Do Not Disturb Mode to silence audio and vibrating alerts and notifications
- Turn off GPS, you can do this in Settings > Location when you don't need location services
- **Turn off vibrate** to save power, you can find this setting in *Settings > Sound*.
- Keep your Gemini cool, research has shown that hot batteries drain faster than cooler ones, so when out and about, keep your Gemini in a bag, pocket, or in the shade when you're not using it
- Schedule power on and off, this setting can be found in the main Settings panel and can automatically switch your Gemini off (for example every night) and then back on again (in the morning). A Gemini that's turned off uses no power at all.

## **UPDATING THE GEMINI PDA**

Periodically essential security and operating system updates will be released by Google and Planet Computers for the Gemini PDA. These are set to download and install automatically when available, but you can check for updates to the Gemini by opening the operating system Settings (Fn + Del) and navigating to About phone and then to WirelessUpdate.





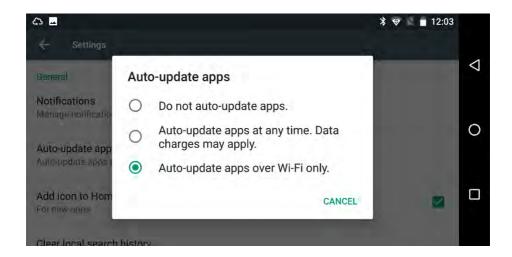
Click the **Detection of update** button at the bottom of the screen to check for new updates. If any are available they will be downloaded and you will be prompted to install them.

## UPDATING APPS ON THE GEMINI PDA

Installed Apps are updated through the Google Play Store. Open the store by pressing Ctrl + S or by clicking the  $\bigcirc$  icon in the all apps list. When the Play Store app is open, click the *Hamburger* menu icon  $\equiv$  at the top left of the screen, and from the fly-out menu that appears click **Settings**.

The **Auto-update apps** options are where you can choose whether apps are not automatically updated (not-recommended), updated just over Wi-Fi, or updated at any time over Wi-Fi or your cellular connection.





## MANAGING PERMISSIONS

When you install apps on your Gemini they will often ask for permissions, such as having access to your files and photos, your camera, or your location.

Often these permissions are necessary. Many banking apps use your cellular number (if you have a 4G Gemini) to identify and authenticate your device to their systems, and useful features such as Google's Find my Device service needs your location information to determine where your Gemini is should you lose it.

#### **CAUTION**

Out of date apps can contain bugs or other vulnerabilities that can present security or stability problems for your files, personal data, and the smooth running of your Gemini PDA.



You might be surprised how many apps ask for permissions they simply don't need, such as access to your camera, microphone, and contacts. All of these can present a privacy and, potentially, a security risk.

Normally these apps will have features such as sharing (a game might encourage you to share your score with friends), or personalisation (where an app can let you create a custom avatar using your camera) that you will either never use, or don't want the app to be able to do.

It's all-too easy to simply click **Yes, Yes** to permisions when installing apps though, but if you want to protect your privacy, it's also very easy to revoke these permissions at any time later.

You can manage permissions for any app by opening **Apps** in Settings, clicking on the app you want to view or manage the settings for, and then clicking **Permissions**.





Each of the permissions available to the app has a switch to its right, and you can switch off any permissions you don't wish the app to have.

**Don't worry** if you turn of a permission that is essential for the app to function properly, as you be prompted to reactivate the permission the next time the app is run, with many apps helpfully explaining why that permission is needed.





# **TIPS & TRICKS**

The Gemini PDA is primarily a productivity-focused device, so in this chapter we'll detail all the tips, tricks, and techniques you can use to do more, more quickly, more effectively, and with greater success and better outcomes.

## **TAKING SCREENSHOTS**

One of the great things about a PC or a Mac is that if you need to show somebody who isn't around, what's on your screen, you can take a screenshot and send it to them.

This might be an image of an app, of a problem you're encountering, or perhaps you're showing somebody how you've set up your Home screen.

It's very easy to take a screenshot on the Gemini however, and you can do so by pressing  $Fn + \frac{1}{2}$  on your keyboard.



#### **TIP**

You can close the Gemini during screencasting to save power. The video will continue to play on the external monitor or television.



You will see your screen appear double for a second as it simulates the save on screen. Your screenshot will then be saved into *Pictures > Screenshots* folder on the Gemini's internal storage (note it's not possible to change this to save on a MicroSD card) and you can access the screenshots from apps or from within a File Manager.



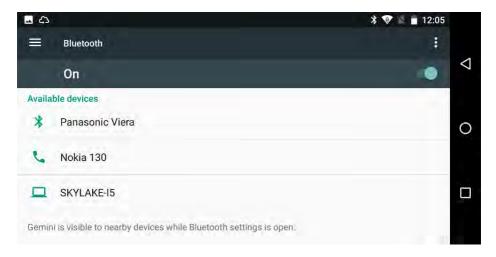
## USING THE GEMINI WITH A KEYBOARD, MOUSE

## **AND MONITOR**

It's possible to use the Gemini with a full desktop keyboard, mouse and monitor, or television by connecting either using the Planet Computers' HDMI adapter cable (you need to use the right side USB port to connect the HDMI adapter), or wirelessly by Screencasting.

You can add a keyboard and mouse either by connecting them via Bluetooth, or by plugging them directly into the Gemini's USB ports, or the Gemini USB Hub.

If you want to use Screencasting to a compatible monitor or television, you will first need to connect via Bluetooth. Open *Bluetooth* from *Settings* and tap the monitor or television name to make the connection.





Screencasting is supported by many Android apps and is usually signified by an icon representing an arrow pointing towards a display, though the icon will vary between apps.

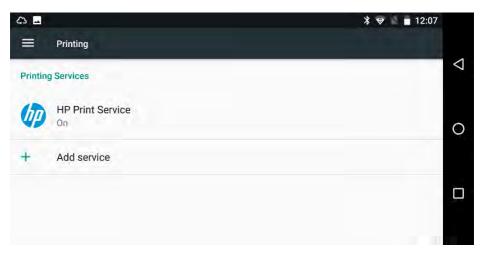
When you connect your Gemini via HDMI, make sure you select the correct HDMI input in the monitor or television's menu. The advantage that connecting offers over Screencasting, is the whole Gemini experience can be shared on a big screen. It is also very useful for watching movies, and packing an HDMI cable, and the Gemini HDMI adapter when you travel can make hotel rooms much more bearable if you keep some movies on your device.





## PRINTING FROM THE GEMINI PDA

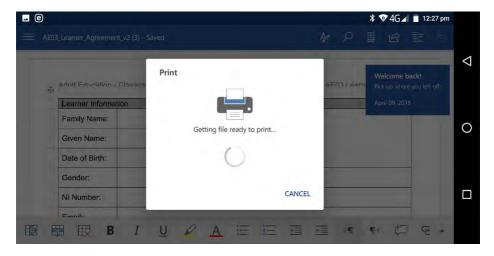
The Gemini supports printing to a wide variety of printers. This is done via plug-in service from printer manufacturers. Open *Printing* from *Settings* and you will see a list of all the printing services installed on your Gemini, along with an **Add Service** button. This will display a list of different print services available to download from the Google Play Store.



When viewing the print services installed on your Gemini, you can tap one to list, or search for printers connected to your network. These can be Wi-Fi printers, Ethernet connected printers, or USB printers that are connected to and shared by a PC or Mac. Note you cannot use NFC printers with the Gemini as the device doesn't support NFC.



You print from within compatible apps, where the location of, and icon for the print icon will vary.



## USING AIRPLANE MODE ON THE GEMINI PDA

When you are travelling by air, you will need to activate Flight Mode on the Gemini. This turns off the Wi-Fi and Bluetooth radios. Once in flight if you be permitted to switch these back on and will be informed by the flight crew on your aircraft.

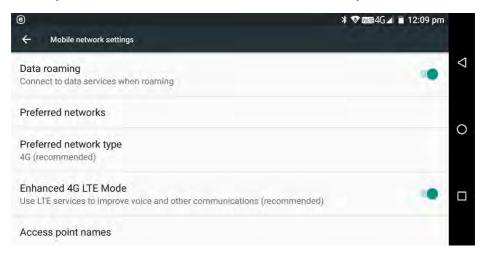
It is a simple process to switch *Airplane mode* on or off on the Gemini. Swipe downwards from the top of the screen at any time to reveal the Notifications panel to reveal the *Airplane mode* icon (note you may have to swipe downwards twice to reveal the icon). Then simply tap the icon to switch the feature on or off.



## MANAGING CELLULAR DATA ON THE GEMINI

When you are travelling you might want to limit the amount of Cellular data you use, so as to minimise expensive roaming bills. There are two ways in which you can manage this.

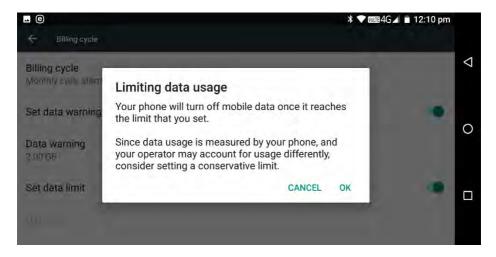
Search in *Settings* for **Roaming** and the *Mobile network settings* will appear. Here you can activate, or deactivate *Data roaming* to allow or deny data transfer over cellular networks when you are abroad.



Additionally, if you have only a certain amount of data in your monthly cellular contract, open *Data usage* from *Settings*, and then tap *Mobile data usage*. This displays a graph showing your mobile data usage, but you then have an additional Settings icon in the top right corner of the screen. Tapping this icon displays additional options, including setting the first day each month of your billing



cycle, and also setting a monthly limit on the amount of cellular data that can be used.



## USING THE CAMERA ON THE GEMINI

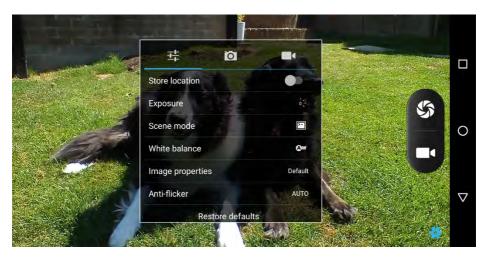
You can take a photograph on the Gemini using either the internal camera, or through the external camera accessory (available from planetcom.co.uk) by opening the *Camera* app on the Gemini.

The supplied camera app, you can download others from the Google Play Store that may offer additional functionality) has clear buttons for taking a photo, or recording a video on the right side.





In the bottom right corner is a *Settings* icon which you can tap to gain access to additional settings such as exposure, scene mode, and white balance.

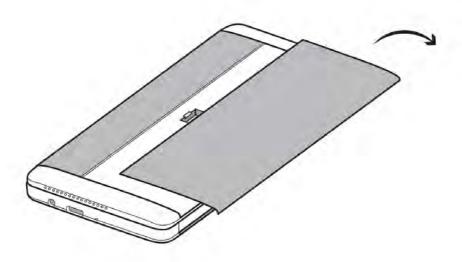




## FITTING THE GEMINI EXTERNAL CAMERA ACCESSORY

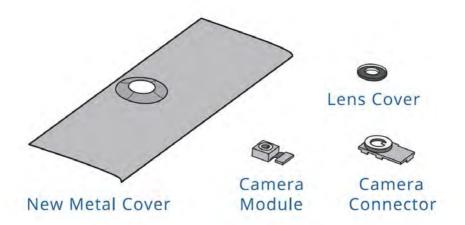
If you have purchased the Gemini external camera accessory, this is how you can safely fit it to your device...

1. Make sure the Gemini is turned off, and remove the top cover using your cover removal tool. You may want to store this cover safely.

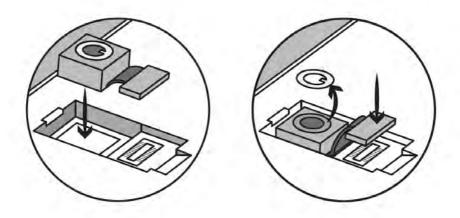


2. Assemble the four components that together make up the external camera module.



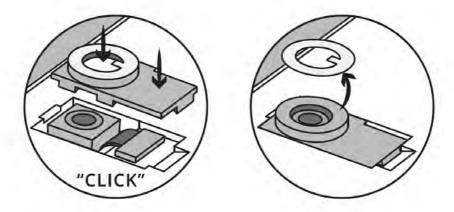


- 3. Gently insert the camera module into the gap in the centre of the Gemini's body. Then click its connector carefully into the connector in the Gemini, until you hear it click into place.
- 4. Next remove the plastic lens protector from the camera.



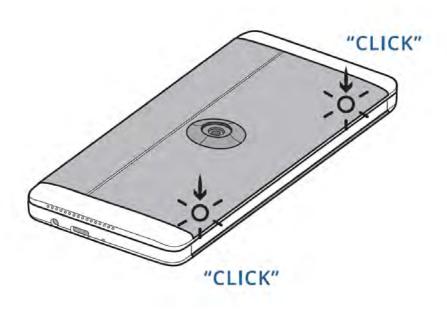


5. Take the camera connector and click it carefully into place over the camera module. Then remove the protective plastic coating from its top.



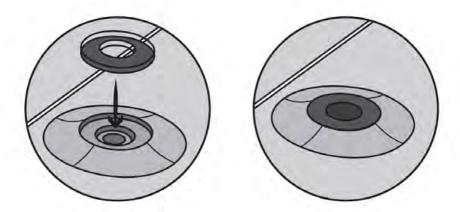
6. Take the new metal cover and click it into place on the top of the Gemini.





7. Lastly, take the protective lens cover and peel away the plastic from the *sticky* side. Place the lens cover gently over the lens, it will fit neatly in the hole on the new metal cover.





You will need to restart the Gemini to be able to use the external camera, and in the camera app you can switch between the external, and selfie cameras using the camera switch button near the top right of the camera app screen.





## PLAYING MUSIC AND VIDEO

The Gemini is a great device for playing music and video on the move, and for taking on trips to relieve the monotony of flights and hotel rooms. I have already detailed in this chapter how you can use the Planet Computers HDMI accessory to play video to televisions, and taking some movies on a MicroSD card when you travel can be a very good idea.

Google's *Play Movies & TV* app is pre-installed on the Gemini, as is the Google *Play Music* app. Many third-party apps exist for playing music and video however with **VLC for Android** being a consistently high-quality, reliable, and popular video player.

To find out how to connect Bluetooth headphones to the Gemini, refer to the *Connecting a Bluetooth Headset* section in the *Using the Gemini as a Phone* chapter.



#### TIP

The Gemini comes equipped with a 16-bit Digital to Analogue Converter (DAC) built-in. This is CD quality and will provide perfectly good music through headphones connected to the Gemini's 3.5mm headphone socket, or via Bluetooth.

If you prefer to listen to 24-bit audio tracks (often referred to as HD or Studio quality) you will need an external USB-connected 24-bit DAC such as the Zorloo ZuperDAC-S (www.zorloo.com) which is pocketable and helpfully, is also a matching colour to the Gemini's "Space Grey" finish.

Many 24-bit compatible music apps exist in the Google Play Store including Onkyo HF Player, USB Audio Player Pro, and Hiby Music.

Many more tips and tricks are regularly added to the Gemini PDA fan and user website **www.GeminiPlanet.com**.



# MAKING ANDROID MORE ACCESSIBLE & EASIER TO USE

In many ways the Gemini PDA is a great mobile device for people who find mobile devices difficult to use. This is because of its keyboard, that is much easier to use than the on-screen keyboard on a smartphone, because you can actually feel the locations of the keys and know when you've pressed one successfully. This is only one way though in which you can make the Gemini easier to use.

This chapter will focus on the Accessibility tools and options that can be found in *Settings > Accessibility*, and full information on accessibility on the Google Android operating system can be found online at **support.google.com/accessibility/android**.

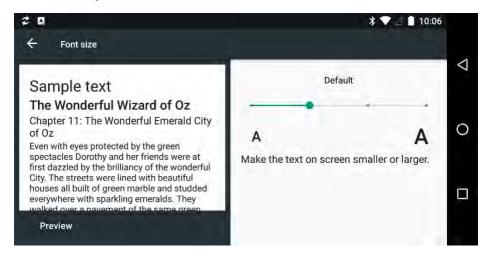
## MAKING ANDROID EASIER TO SEE

There are several ways in which you can make the screen on your Gemini easier to see, and Google's Android operating system comes with many different features that you can use individually, or in combination, to help make your Gemini more accessible.



#### CHANGING THE FONT SIZE

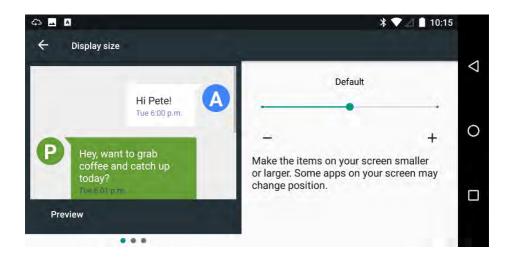
In the Accessibility settings, the first display option is *Font size*. This displays an easy to see slider on the right of the screen, with some sample text on the left. When you move the slider the text size will change in the preview panel, making it easy to find a text size that's suitable for your needs.



#### CHANGING THE DISPLAY SIZE

It's a similar story with the *Display size* accessibility option. This too presents a slider on the right side of the screen, with a preview panel on the left. Additionally however there are three preview panels, so you can swipe left and right on the preview to see how different aspects of the operating system, and installed apps will look with the new desktop scaling.





#### HIGH CONTRAST TEXT AND COLOUR INVERSION

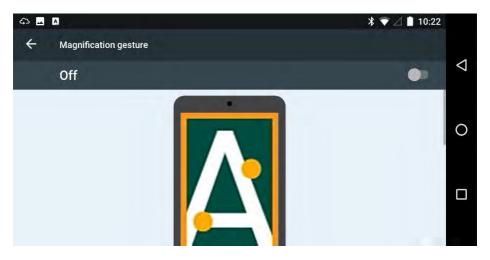
High contrast text is commonly used on PCs and Macs to make test easier to read. On the Gemini it is available in the Accessibility options as a simple on/off switch.

Additionally a *Colour inversion* option will invert the colours of both the text and background, which can create a high contrast image that's easier to see and read.

#### **MAGNIFICATION GESTURE**

It's common on touch-screen devices to use pinch to zoom gestures to make text and other items on the screen easier to see, or to fit more on the screen. *Magnification Gesture* allows you to use this on the Gemini's touch screen anywhere in the operating system.





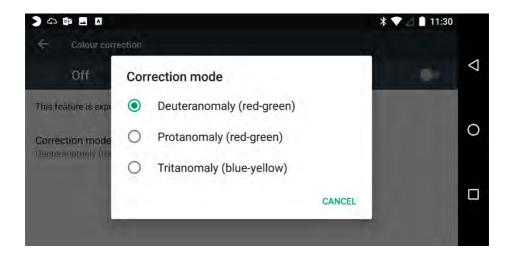
Once activated, tap the screen 3 times with one finger then you have two types of touch control you use...

- Drag 2 or more fingers to scroll
- Pinch 2 or more fingers together or apart to zoom out or in

## HELPING PEOPLE WITH COLOUR-BLINDNESS AND DYSLEXIA

The Colour correction feature can help Gemini users with colourblindness and dyslexia. There are different colour modes available that can make text easier to read on screen.

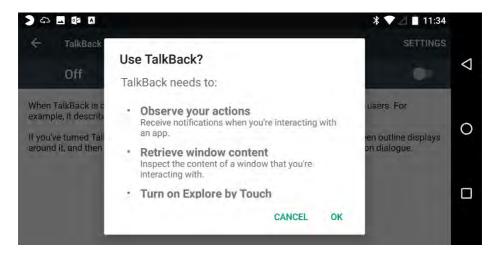




#### GOOGLE TALKBACK AND SELECT TO SPEAK

Google TalkBack is a feature that provides spoken feedback for people who find the Gemini screen difficult, or impossible to see and read. It is activated by a simple on/off switch in the Accessibility settings.





You can have TalkBack read text and on-screen items at any time once TalkBack is activated by touching or tapping items on screen to have them read aloud. TalkBack will also read the text in notifications and other operating system and app elements that you can interact with.

Select to Speak is another option available in the Accessibility settings that can read items on screen when you tap them. You can find out more about Google TalkBack on Google's website at support.google.com/accessibility/android.

## MAKING ANDROID EASIER TO USE

When people think about accessibility, it's all too common to believe this just affects people who can't see or hear the computer. There are many people though who simply find any computing device, especially a handheld, mobile device, difficult to use.



This can include people who have a physical impairment, but also those who have motor problems, or whose hand-eye coordination isn't very good.

#### SWITCH ACCESS

Switch Access works with third-party accessibility hardware to help people with limited dexterity better control mobile devices. You can get more information about Switch Access, and where you can purchase third-party switches on Google's website at <a href="mailto:support.google.com/accessibility/android">support.google.com/accessibility/android</a>.

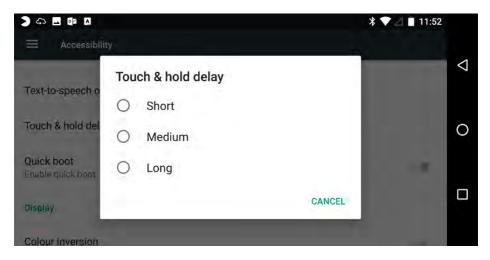
#### CLICK AFTER CURSOR STOPS MOVING

This option is perhaps more suited to on-screen keyboards, but it sounds an audible click when the cursor stops moving, and when you stop typing on the Gemini. It can be a useful way to know if what you're typing isn't being accepted, perhaps because you have inadvertently clicked outside of the input box.

## TOUCH AND HOLD DELAY

If you find some touch gestures difficult to use, the *Touch and Hold Delay* feature can perhaps help. This changes the time it takes when you touch and hold an item on screen before an action starts, such as displaying a pop-up menu.





This enables you to touch and hold and item on screen for longer if you need more time to perform an action such as dragging and dropping an item on screen.

## MAKING ANDROID EASIER TO HEAR

It's not only people with a hearing impairment who can have difficulty hearing alarms, calls, and notifications on their Gemini. Anybody who works in a noisy environment will attest to how difficult this can be.

Here of course the Gemini has one significant advantage over all other handheld devices, the external alert LEDs, and you can read how to configure these for different events in the *Using the Gemini as a Phone* chapter.

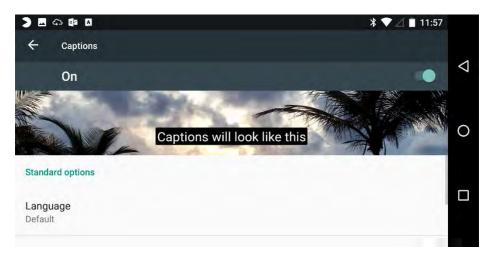




## USING CLOSED-CAPTIONING FOR VIDEO

The Gemini Accessibility settings include a *Captions* option that can provide closed-captioning subtitles for watching video. The Gemini itself is a fantastic video device, especially for those on the move and in cramped conditions such as on flights and trains.





When you activate Closed Captioning you can choose the default language, text size, and colour style (background and foreground), and a live preview of how the captions will look when you are playing video will be displayed on screen.

#### SPEAK PASSWORDS

Speak passwords is a feature that reads aloud passwords as you type them. It works only when the Google TalkBack feature is activated and if you switch it on it will read passwords through the Gemini's speakers. In the off position it will only read passwords through headphones.

## **MONO AUDIO**

If you find stereo sound difficult to hear, or if you prefer singlechannel (mono) audio, you can switch all sounds, music and video



on the Gemini to play in mono automatically by activating the *Mono audio* option.

## ADDITIONAL ACCESSIBILITY FEATURES

It's worth noting that this is not the limit of Google Android's accessibility features, though these are the ones perhaps most relevant to Gemini users. These accessibility features are being improved and expanded upon regularly, and you can find new new features in the *Accessibility* settings in the Gemini, and also on Google's website at **support.google.com/accessibility/android**.





## **SECURITY & BACKUPS**

It's not a secret that mobile devices and smartphones are targets for theft, but the reasons for keeping your Gemini secure go much deeper than this. You could lose your Gemini, have it slip from your pocket or leave it on a train, or you might do something as simple as purchase a new smartphone to use with your Gemini, and then want to synchronise your settings over to the new device.

The Gemini enthusiast and owners website **GeminiPlanet.com** have a very handy guide online to help you stay safe when using your Gemini out and about, and you can read this at <a href="https://pcs.tv/2s4X9Lf">https://pcs.tv/2s4X9Lf</a>. It's also a very good idea to set a secure password, we detail our top tips for creating secure passwords, and for using two-factor authentication, in the *Getting Started* chapter.

## WHY SHOULD YOU SECURE YOUR PDA

While it could be convenient to keep your Gemini PDA permanently unlocked, so that it's instantly available to use whenever you open it, there are several reasons to secure it properly.



The first of these reasons is theft or loss. Mobile device theft is always a major problem in our towns and cities. If your device is stolen, not only could you run up a bill with any calls and data use on the device by the thieves, but **all** of your files, data, and accounts will be visible and available to them as well. This would include access to your email, messaging, and social media accounts.

If that isn't a good enough reason to secure your Gemini, data protection regulations, such as the General Data Protection Regulations (GDPR) in the European Union are extremely strict, with large fines being issued against any business that does not adequately and appropriately secure its customers' data.

#### **CONFIGURING GEMINI SECURITY**

You set passwords and security options in *Settings >* Security. There are several ways you can secure your Gemini...

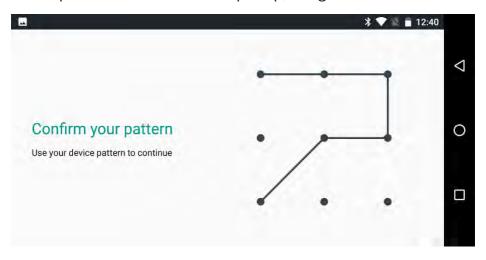
- None means the Gemini will not have any security (not recommended)
- Swipe displays just a lock screen that can be swiped upwards to unlock the device (not recommended)

#### TIP

The internal storage in the Gemini PDA is encrypted by default. You don't need to do anything, all the files and data stored on the Gemini is encrypted automatically. It is not possible however to encrypt any files and data stored on an inserted MicroSD card.



Pattern gives you a grid of nine dots in which you can draw a
pattern that's used to lock your Gemini. Avoid using simple
patterns such as basic swipes up, or right.



- **PIN** lets you set a pin code of four numerical digits or more, similar to that used with your bank card.
- Password uses a full password to secure the Gemini. This
  make it longer to unlock the Gemini, but is the most secure
  option.

#### **USING SMART LOCK**

*Smart Lock* can be found in the *Settings > Security* panel. It uses one or more methods to automatically unlock your Gemini based on proximity. These include...



- Keeping the Gemini unlocked as long as it's on your person and detecting movement
- Automatically unlocking the Gemini when you are at a specific location (requires *Location services* to be enabled in Settings)
- Having a Bluetooth wearable device that is connected to the Gemini

#### **CAUTION**

SIM card lock is a feature that locks the SIM card with a PIN code, preventing calls and data use unless the PIN is entered. If you activate this feature you will need to enter the PIN every time you switch on the Gemini.

- Using the Gemini camera to recognise your face
- Using a *Voice match* to unlock the Gemini so you can unlock it with a voice command

## UPDATING THE GEMINI FIRMWARE

The Android operating system in the Gemini is called the *firmware*, and it is very important to keep it up to date. This is because without the latest security and stability fixes for the Gemini, you could be vulnerable to a malware of hacking attack on your files and data.

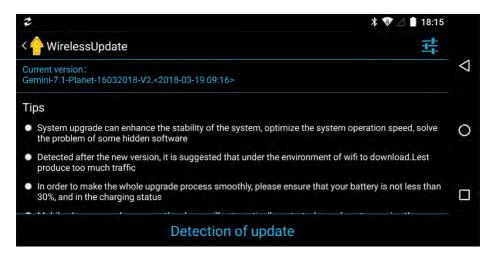


You can access the firmware update feature on the Gemini in Settings > About phone > Firmware Update (Wireless Update on some operating system builds).

The Firmware Update utility will tell you if an update is available if you tap the *Detection of update* button.

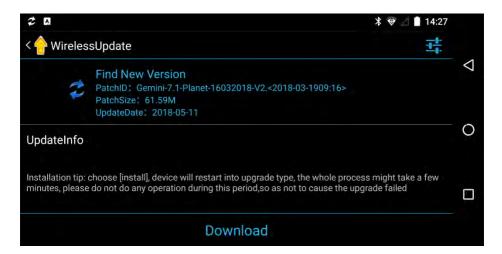
### **CAUTION**

If you have your Gemini screen set to a very high DPI setting, the Download and Install buttons may not be visible on screen. You will need to temporarily change the scaling of your screen so they become visible.



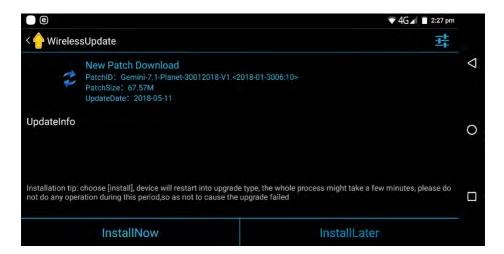
Should a firmware update be available, you will see a *Download* button, unless your Gemini is set to automatically download updates (more on this shortly).





With the new firmware downloaded you will see two buttons appear at the bottom of the screen. *Install Now* and *Install Later*. The installation can take up to 20 minutes (sometimes longer) during and you will need at least 30% (preferably 50%) so it can be wise to leave firmware updates until you are charging the Gemini, and don't need to use it.





When the firmware update is installed, the Gemini will automatically restart and present you with the lock screen to sign in.

There are settings you can configure for the firmware updater too, which are accessed by tapping the menu icon  $\stackrel{2}{\Longrightarrow}$  in the top right of the screen.

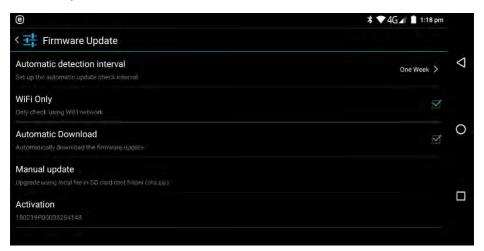
#### TIP

If you dual or triple-boot your Gemini between Android and the Linux or Sailfish operating systems, you will need to update the firmware manually. Visit support.planetcom.co.uk to download the latest firmware build, then place it in the root folder of a MicroSD card. From the Firmware Update screen, tap the menu option in the top right of the screen, and from the options menu tap the *Manual update* button.



#### The options available are...

- Automatic detection interval is the period of which the Gemini will check for firmware updates. This can be set to one week, two weeks or one month.
- WiFi only will only download firmware when your Gemini is connected to a Wi-Fi network. This is because the updates can be several gigabytes (GB) in size, and this can use a lot of your cellular data allowance.
- Automatic download will toggle between the Gemini downloading new firmware itself, or you downloading it manually.
- Manual update is used if you are dual or triple-booting your Gemini between Android and other operating systems (see Tip above).





## **UPDATING GOOGLE PLAY STORE APPS**

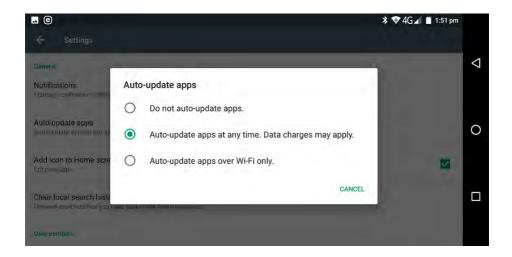
It is every bit as important to keep your apps up to date as it is the Gemini's firmware. This is because having out of date apps can present security and stability issues and open your data to theft or malware attack.

You can keep your apps updated by opening the *Google Play Store* and tapping the *options* button  $\equiv$ . In the fly-out panel that appears, scroll down until you see *Settings* and tap it.

At the next screen tap *Auto-update apps* and choose the option that works best for you. These are...

- **Do not auto-update apps** which is not recommended.
- Auto-update apps at any time which will update apps over Wi-Fi and cellular, and will use cellular data in your allowance
- Auto-update apps over Wi-Fi only will keep apps updated when you are connected to a Wi-Fi network





# **BACKING UP YOUR GEMINI PDA**

Should you have to reset your Gemini at any time you can get started again much more quickly if your Gemini is backed up. This enables the set-up procedure on the Gemini to automatically download and install any apps, and some settings that you had

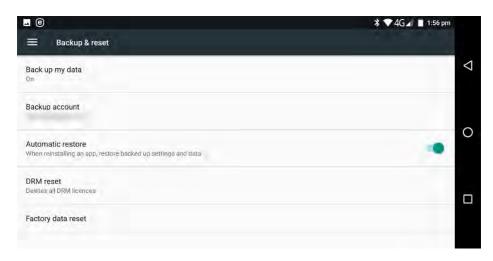
#### TIP

It is always a good idea to keep a close eye on the permissions your installed apps ask for, as you may be surprised how many seek access to your camera, microphone, and contacts. I detailed how to do this in the *Using Google Android* chapter.



configured before. This can also be useful if you are transitioning to the Gemini from an Android smartphone.

In *Settings* tap the *Backup & reset* option. Here is an option to *Back up my data*. With this activated periodic backups of your Gemini's settings will be stored in your Google account online. You can use the same account you Signed into the Gemini with, or choose a different account.



### USING THE GEMINI WITH A VPN

A VPN (Virtual Private Network) is a service that reroutes your Internet traffic through one or more secure, encrypted and private servers around the world. The primary purpose of a VPN is to hide your traffic from other computers attached to the same network, so that it cannot be seen. Consequently many businesses, governments, and organisations worldwide use VPNs to ensure

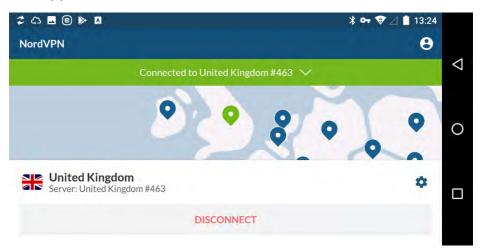


their communications and mobile work are secure and cannot be snooped on, or easily hacked.

There are downsides to this. Some countries have blocked VPN usage, and there are countries where even having VPN software installed on your device(s) is illegal. You can get information on which countries have VPN bans or restrictions from your government's travel advice web page.

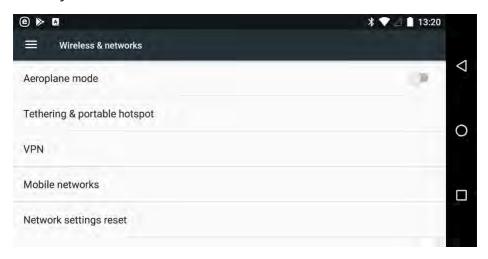
You can install a VPN from the Play Store, though they are subscription services and you will need to pay a monthly or annual fee for their use.

Once the VPN is installed you will primarily configure it through its own app, such as Nord VPN seen in the screenshot below.





There are additional options available for VPNs to be found in *Settings > More > VPN*, including the ability to set the VPN to be permanently turned on when the Gemini is switched on or in standby.







# USING THE GEMINI FOR WORK

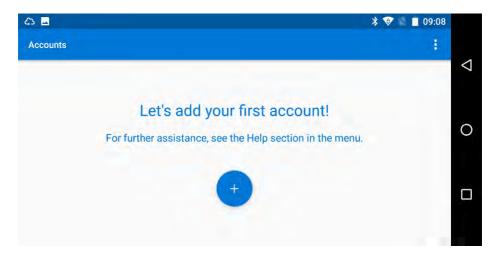
# & REMOTE ACCESS

The Gemini PDA is a productivity—focused mobile device. The full keyboard allows us to work effectively on the move. How we connect to our workplaces though varies, depending on the services that we use.

# MICROSOFT AZURE ACTIVE DIRECTORY

If you connect to a workplace using Microsoft server or cloud technologies, you will need to install the Microsoft Authenticator app on your Gemini to sign into the company services. You can download the Microsoft Authenticator at this link <a href="https://pcs.tv/2sS39XY">https://pcs.tv/2sS39XY</a>. This app allows for your Gemini to be registered with your company or organisation for authentication purposes.

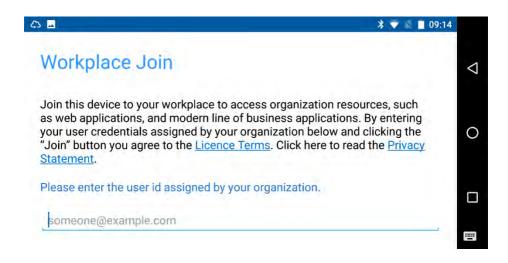




Your IT department will either give you a QR code to scan, or details to enter into the app manually, to authenticate your Gemini with their system.

With the Microsoft Authenticator app installed, you can also add your work account through the Settings panel. Navigate to *Settings* > Accounts > Add Account > Work account.

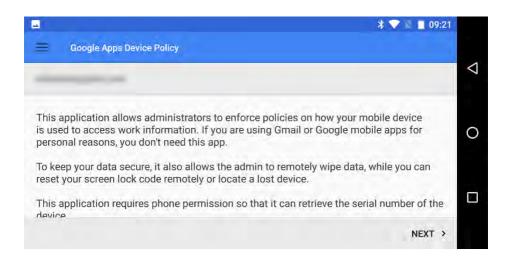




# ADDING A GOOGLE G SUITE ACCOUNT

If your company or organisation uses Google's G Suite, you will need to download and install Google's Apps Device Policy app, which you can find in the Play store at https://pcs.tv/2MkeU1n. Sign into the app with the account details you use for G Suite to authenticate your device to the company or organisation servers.





# **OFFICE 365 AND MICROSOFT 365**

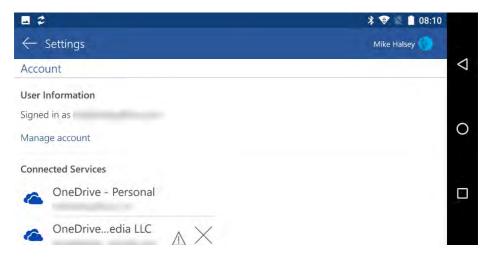
The Gemini comes with quick download links for Microsoft Office apps (Word, Excel) pinned to the App Bar. These apps integrate directly with Microsoft's Office 365 and Microsoft 365 services, allowing you to access, edit, create, and save documents to your company or organisation file storage.

You will be prompted to sign into your Office 365, Microsoft 365, or Microsoft Account when you first use one of the Microsoft Office apps (you will only need to do this once as they integrate with one another).





When in the app, you can manage the services you are connected to by tapping your avatar icon in the top right corner of the screen, and then tapping with *Add account* or *Settings*, the latter of which will display the different accounts your Gemini is connected to.

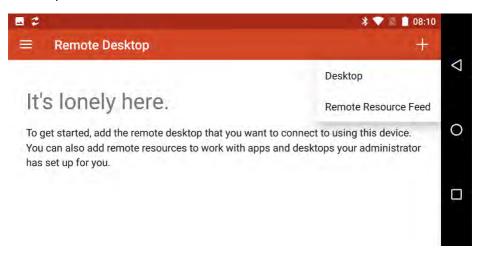




## MICROSOFT REMOTE DESKTOP SERVICES

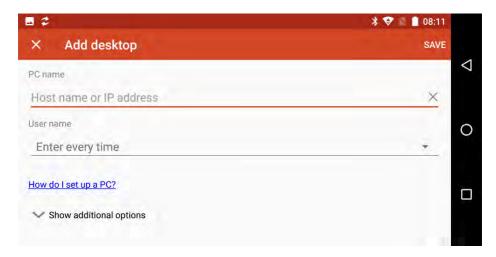
You may connect to your desktop PC, a company system, or a virtual machine running in a cloud service such as Microsoft Azure. You can use the Microsoft Remote Desktop app to achieve this, which you can find in the Play Store at https://pcs.tv/2t55KNl.

When you first set up Remote Desktop, tap the + icon in the top right corner of the screen, and select the option to either add a *Desktop [connection]* or a *Remote Resource Feed*.



Remote Desktop will scan your locally connected network for PCs you can connect you, but you can tap the *Add Manually* link to specify the Host Name, IP Address, and user account details for the PC or virtual machine you wish to connect to.





Once you are connected to your remote PC or virtual machine, you can use the Gemini keyboard and any USB or Bluetooth-connected mouse with the Remote Desktop session. There are also several controls available to you which you will see as icons sitting top-centre on your screen.





The *Menu* icon will display various options, such as enabling touch-screen (Mouse pointer) mode on your Gemini and allowing you to switch between different virtual machine connections if you have more than one open.



Next to the menu icon is the keyboard icon. Tapping this opens a panel at the bottom of the screen that offers various on-screen keyboard options including the Windows key (where appropriate) and specialist keys such as AltGr, which is not available on the Gemini hardware keyboard.





# **VMWARE HORIZON**

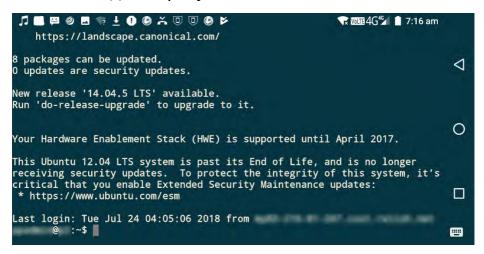
In addition to Microsoft's Remote Desktop app, you can connect to remote desktops and cloud-based virtual machines using the VMWare Horizon Client app, which you can find in the Play Store at https://pcs.tv/2Mof08k.

# **JUICESSH**

The Gemini comes with a quick install link to the JuiceSSH terminal services client, pinned to the App Bar. JuiceSSH allows you to remotely administer Linux servers over a Secure Shell (SSH) encrypted network connection.



It operates as a command line tool that offers a broad range of functionality. It is widely considered an excellent remote management, and access tool. You can find out much more about the JuiceSSH app at https://juicessh.com.





# INSTALLING AN ALTERNATIVE

# **FIRMWARE**

The Gemini PDA is high versatile, meaning that while it comes with Google's Android operating system on board, it can boot up to three different operating systems (OS), and from a variety including different variations of Linux, including Debian and the Sailfish mobile OS. Indeed you don't need to use Android on the Gemini at all if you don't want to.

#### TIP

Online forums exist to help install alternative firmware on the Gemini PDA. You can find these at the following links...

https://forum.xda-developers.com/gemini-pda

http://www.oesf.org/forum/

Also keep an eye on the official Gemini support website for updates at <a href="http://support.planetcom.co.uk">http://support.planetcom.co.uk</a>



## WHAT YOU NEED

There are a few tools you will need to install an alternative firmware, and they can all be found on the Planet Computers support website at

http://support.planetcom.co.uk/index.php/Android\_Flashing\_Guide.

These include...

- Windows Flash Tool Drivers, these are required for the Gemini to be identified by a PC over a USB connection
- Windows Flash Tool, is the software utility you use to install firmware to the Gemini from a PC running Windows
- **Linux Flash Tool**, is the software utility used to install firmware to the Gemini from a PC running Linux

**NOTE:** that flashing the firmware means if you have a version of Android already configured on the Gemini, it will be wiped, and you will have to reconfigure it and download your apps again.

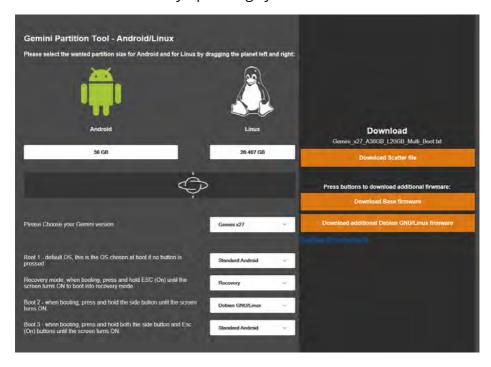
### STEP 1: CUSTOMISE THE GEMINI PARTITION

### **TABLE**

The first step is to choose how much of the Gemini's 64GB storage you want to use for your primary and secondary operating systems. To do this visit http://support.planetcom.co.uk/partitionTool.html and move the slider left and right, you will see numerical values for both partitions appear so you can decide how large or small you



want each one to be. It is always recommended you leave a minimum of 4GB for any operating system.



Below the slider are options you need to select, the first of which is to select your Gemini version (x27, x25, or Wi-Fi only). You also need to choose which operating systems you want on *Boot 1, Boot 2* and *Boot 3* (optional).

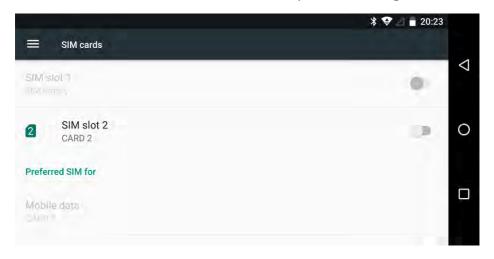
When you have selected your options, download links will appear on the right side of the page for a *Scatter file* and base firmware for the operating systems you have chosen, download these to your PC.



#### **IDENTIFYING YOUR GEMINI VERSION**

It is easy to identify which version of the Gemini you have.

- x27 has an option in Settings called SIM cards, this is because the x27 Gemini includes an eSIM which the x25 version doesn't
- x25 does not have the SIM cards option in Settings



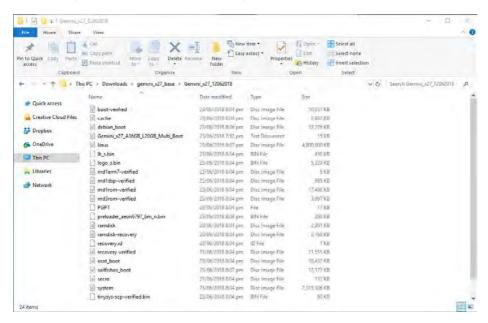
 Wi-Fi only does not have cellular connectivity, does not come with a SIM card slot, and requires a Wi-Fi connection for you to get online



## STEP 2: SET UP THE FIRMWARE FILES

All of the files you download need to be sat in the same folder on your hard disk, so it can be a good idea to create a new folder called "Gemini", though you can name this folder whatever you wish.

When this is done you will have a single folder containing the base firmware, the additional firmware, and the scatter file.





# STEP 3: CONFIGURE THE FLASH TOOL

Run the **install.bat** file in the FlashToolDrivers download to install the hardware drivers for your PC, so the Gemini can be seen by the Flashing tool. Next, run the **flash\_tool.exe** program to start the Flash Tool.

#### **CAUTION**

On a Windows 10 PC you might get an alert pop up alert saying that **Windows protected your PC**. This happens because Windows 10 doesn't identify the Flashing Tool as being safe. Click the *More info* link in the top left of the dialog and then click the *Run anyway* button to run the Flashing Tool.

If the *Run anyway* button doesn't appear, from the Windows 10 Start Menu search for *App & browser control* and click it when it appears in the search results. Change the *Check apps and files*, and the *SmartScreen for Microsoft Edge* settings to **Warn** and restart the Flashing Tool. Doing this will not compromise the safety and security of your PC.





With the Flashing Tool running, ensure the *Download Agent* field has the file **MTK\_AllInOne\_DA.bin** selected and then click the *Choose* button next to *Scatter-loading file* to select the Scatter file you downloaded from the Partitioning Tool website.

Lastly, connect the Gemini to your PC by USB. You can use the charging cable that came with the Gemini for this purpose.





# STEP 4: BACK UP THE GEMINI NVRAM

You are almost ready to install the new firmware onto your Gemini, but first you need to make a backup copy of the NVRAM (non-volatile random-access memory) on the Gemini, so that this can be restored should something go wrong.

The NVRAM stores critical information such as the Gemini's IMEI number. If it is lost or corrupted the Gemini will not be able to use cellular connectivity or data.





Click the *Readback* tab in the Flashing Tool and then click the *Add* button, a row of data will appear in the tool. To back up the NVRAM click the *Read Back* button, restart the Gemini and wait until the Flashing Tool informs you the NVRAM has been successfully backed up.

#### TIP

It is a good idea to keep a backup copy of the NVRAM file, the Flashing Tool informs you in the *File* field of the Read Back tab where the backup file will be stored on your PC.



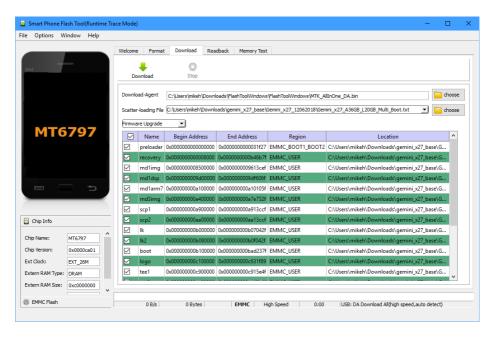
# STEP 5: FLASH THE GEMINI WITH NEW FIRMWARE

You are now ready to install new the firmware to your Gemini and you should restart it to boot into Android so the Gemini can be seen by the Flashing tool. You should also ensure you have a minimum of 30% battery on your Gemini, as this process can take a few minutes.

#### TIP

Make sure to keep a safe copy of your scatter file, as you will need it when you reflash the Gemini or update the installed version of Android. The scatter file stores information on the Gemini partitioning. Using the saved scatter file will ensure you do not have to reinstall your operating systems from scratch when updating.





Navigate to the *Download* tab in the Flashing Tool and change the dropdown menu option to *Firmware upgrade*. Next click the *Download* button and restart the Gemini. You will be informed when the Flashing process has completed.

# INSTALLING THE FLASHING TOOL ON LINUX

If you are flashing the Gemini from a PC running Linux, once you have downloaded the Linux Flashing Tool follow these instructions...

### tar -zxvf FlashToolLinux.tgz

Before running the flash tool you will need to add some rules to udev.



Create the blacklist file by typing (using either the "sudo command" or syntax or simply typing the command as root):

sudo gedit /etc/udev/rules.d/20-mm-blacklist-mtk.rules

And inside the file put the following 2 lines:

ATTRS{idVendor}=="0e8d", ENV{ID\_MM\_DEVICE\_IGNORE}="1"

ATTRS{idVendor}=="6000", ENV{ID\_MM\_DEVICE\_IGNORE}="1"

After that, restart the udev:

#### sudo service udev restart

Finally, run the flash tool application by entering into the FlashToolLinux folder and typing:

#### cd FlashToolLinux

## sudo ./flash\_tool.sh

*NOTE:* If you are using Ubuntu you will need to install the following dependency:

#### sudo apt-get install libjpeg62

*NOTE:* On Fedora you will have to write the following command to allow applications running with root privileges to access the X server (this will fix the lines above for both gedit and flash\_tool):

#### xhost +local:

Additionally you will have to restart the udev service by typing (or rebooting your machine):



#### udevadm control --reload-rules && udevadm trigger

Finally, you will need to install the following dependency:

sudo yum install nas-libs-1.9.4-13.fc28.x86\_64

# TRIPLE-BOOTING THE GEMINI PDA

You dual and triple boot the Gemini PDA in the following ways...

- To boot into the *primary* operating system, start the Gemini as normal by pressing the **Esc** key until the Gemini vibrates
- To boot into the secondary operating system, press the Esc button to turn the Gemini on, and then press and hold the silver Google Assist button on the right side of the Gemini for three seconds
- To boot into the *tertiary* operating system (if installed) turn the Gemini on and then press and hold *both* the **Esc** and **Google Assist** buttons for three seconds

### INTRODUCING DEBIAN LINUX

Debian is the primary Linux distribution available for the Gemini, though others can be installed and will be made available through the Partitioning Tool website over time.

When you first start Debian on the Gemini you are prompted for a password, type **gemini** and press Enter.



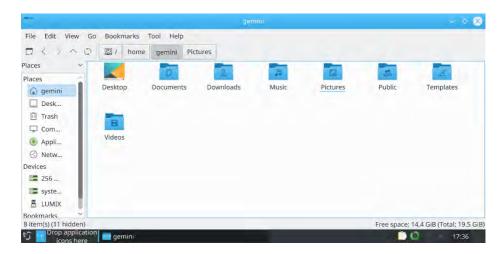
The Debian Linux desktop is a full desktop operating system, and as such it can be useful to use a USB or Bluetooth mouse with the Gemini, though it also supports multi-touch. You can also connect the Gemini to an external screen or TV via the Planet Computers HDMI connector, or via Miracast where it is supported.

The main apps menu can be found by clicking the icon in the bottom left corner of the screen, and many apps including terminal services, a web browser, and a full copy of Libre Office are preinstalled.



Debian can see all the features of your Gemini including an installed MicroSD card. This can make it simple to transfer files and documents between Linux and Android on the Gemini.





Next to the app menu button is a *Quick Launch* area. You can drag and drop icons here from the app menu to enable you to launch them quickly, whenever you need them.

At the right side of the Linux taskbar are icons for the clipboard, a battery indicator, and other icons including a volume control and a clock which will display a calendar when tapped. In the very far right corner of the taskbar is a minimise all / show desktop button.

#### RESTARTING AND SWITCHING OFF DEBIAN LINUX

So restart or switch off the Gemini when using Debian Linux, open the app menu and select *Leave*. Here you will see options to Hibernate, Reboot, and Shutdown the Gemini.

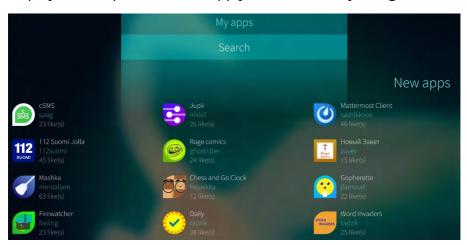


### INTRODUCING SAILFISH OS

Sailfish is an alternative, open-source mobile OS from Finnish company Jolla (you can find out more at **sailfishos.org**). It is gesture based and allows you to swipe from the left, right, top and bottom of the screen to perform different functions.

Swiping downwards from the very top of the screen displays a *Lock* button, and different themes you can apply to the Gemini.

Swiping downwards from within an app will, where appropriate, display menu options for the app you are currently using.

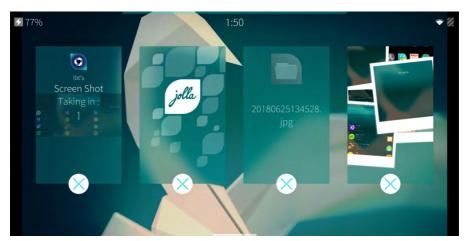


Swiping upwards from the bottom of the screen displays the app launcher. This contains icons for all your installed apps, including the *Jolla Store* and *Settings*, and you can open any app with a single tap.



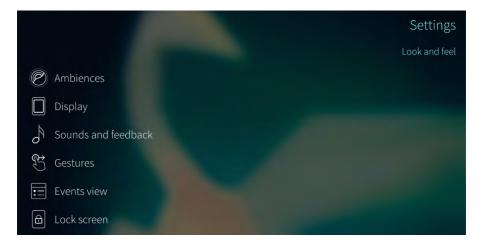


Swiping from the left side of the screen will display the *notification* area. Swiping from the right side of the screen displays the main desktop, with icon representations of your running apps. You can close any app by touching and holding it until close icons appear beneath the app thumbnails.





Settings is where you configure Sailfish OS, and scrolling down to the very bottom of the Settings list you will see *Accounts*. This is where you can add email and other accounts to Sailfish on the Gemini, and the OS has both Dropbox and OneDrive support builtin.



#### RESTARTING AND SWITCHING OFF SAILFISH OS

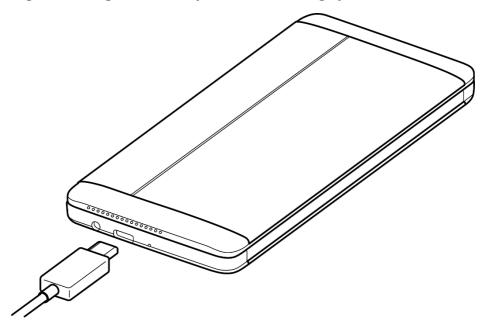
If you want to put the Gemini in Standby when using Sailfish, press **Fn + Esc** to put the Gemini to sleep. To turn the Gemini off when running Sailfish, press and hold **Fn + Esc** and a power button will appear at the top-centre of the screen.



# **CARE & SAFETY**

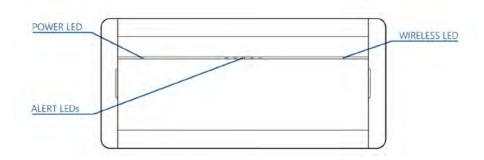
### **CHARGING THE GEMINI PDA**

The Gemini PDA can only be powered through the USB port on its *left* side. This is the side with the headphone socket. You should use the supplied Gemini charger as some third-party chargers can regulate voltages incorrectly and could damage your Gemini.



The power LED on the top of the Gemini will change colour to reflect the charging status. *Red* for low charge, *Amber* for moderate charge, and *Green* for fully-charged.





### USING THE GEMINI SAFELY

To use the Gemini safely and securely, follow these tips and advice...

- Hold the Gemini securely in both hands, you can do this while typing with your thumbs, or place the Gemini on a secure, flat surface.
- DO NOT get the Gemini wet or damp. The Gemini PDA is not water resistant and getting the device wet might render it unusable.

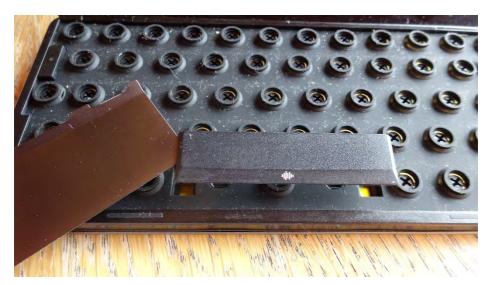
### **CLEANING THE GEMINI**

You can clean the Gemini with a soft, anti-static cloth. The keyboard can, over time, become dirty but can be safely cleaned. Use your cover removal tool, or a thin plastic of metal tool such as a ruler to gently lift each key until they pop-off. Be very careful not to damage the plastic connector under the centre of each key.





The space bar and enter key are held in place by metal brackets. These do not need to be removed, but you can gently lift these keys to clean underneath them.





Use a soft brush to clean dust and dirt from the rubber keyboard mat. When you are done, gently and carefully replace the keys on your Gemini.

You can clean the screen on your Gemini with a soft cloth and, optionally, dedicated screen cleaning solution. Do not apply too much pressure when cleaning the screen.



## **TROUBLESHOOTING**

### **REBOOTING THE GEMINI**

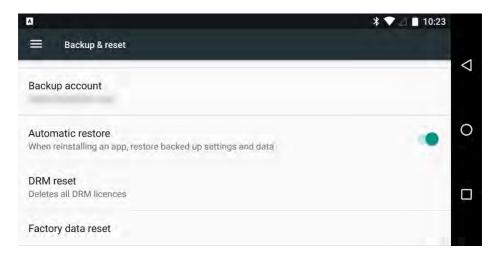
If Android or your installed version of Linux crashes, and the Gemini becomes unresponsive, you can reboot the device by pressing and holding the *Esc* (power) key for 10 seconds. This will force the Gemini to restart.

In some circumstances this reboot doesn't fix the issue you face. Should this occur, press and hold the *Esc* (power) key and the silver side button for 10 seconds to force a hard reboot of the Gemini.

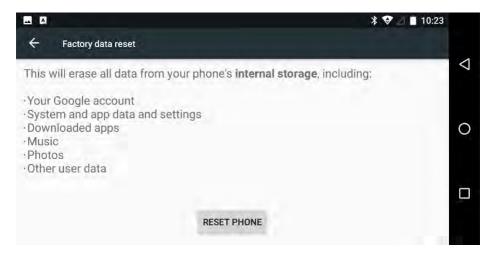
#### RESETTING THE GEMINI

If you need to completely reset the Gemini, this can be done from Settings > Backup & reset. At the bottom of this settings screen is a Factory data reset option.





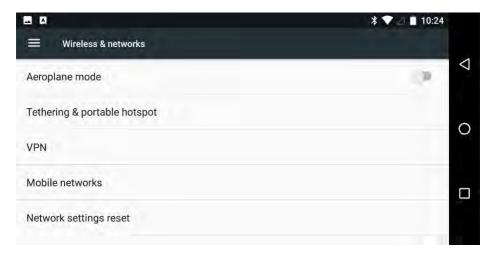
This erases and resets all your account, app, and settings data from the Gemini, and deletes any files you have on the Gemini's *internal* storage. It does not erase any files or data stored on a MicroSD card.





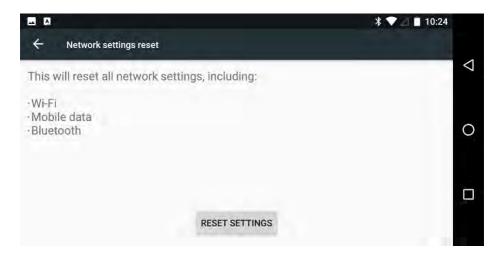
### RESETTING NETWORK SETTINGS

Should you be experiencing problems with your cellular, Wi-Fi, or Bluetooth connections, you can completely reset the network settings on the Gemini.



To reset your network settings, navigate to *Settings > More > Network settings reset*.





Note that resetting your network settings will delete any stored Wi-Fi passwords contained within the Gemini. The next time you connect to a known Wi-Fi network you will be required to re-enter the access password.

### CONFIGURING THE HARDWARE KEYBOARD

If you find that some keyboard assignments are incorrect for non-UK keyboards, such as being unable to access the @ symbol, you need to correctly configure the hardware keyboard. Instructions for changing the keyboard layout can be found in the *Getting Started* chapter.



### BACKING UP AND RESTORING THE NVRAM

The NVRAM (non-volatile random-access memory) in the Gemini stores information vital to the smooth operation of the Gemini, such as a disk partition table and the device IMEI number(s).

We detail how to create a backup copy of the NVRAM in the *Installing an Alternative Firmware* chapter. You should keep this backup copy safe as you will need it when installing Android operating system updates in the future.

If you need to restore the NVRAM to your Gemini, send an email to hello@planetcom.co.uk and a support person will walk you through the operation.









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