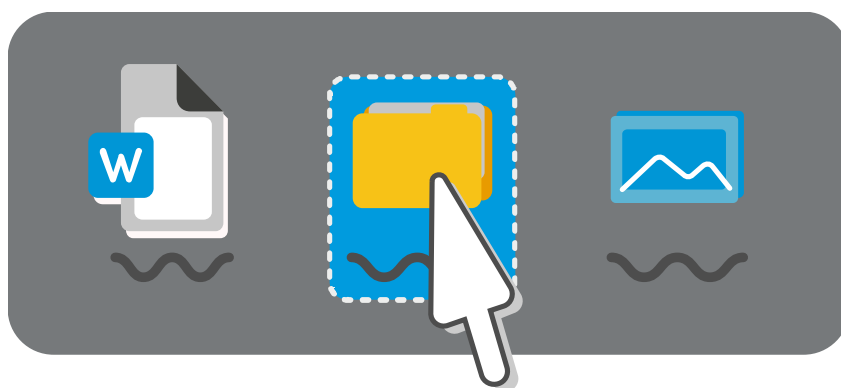**activating** and **highlighting** cells.

Computer control

You have a number of options to adjust how the pointer acts when you are using Grid to access other applications.
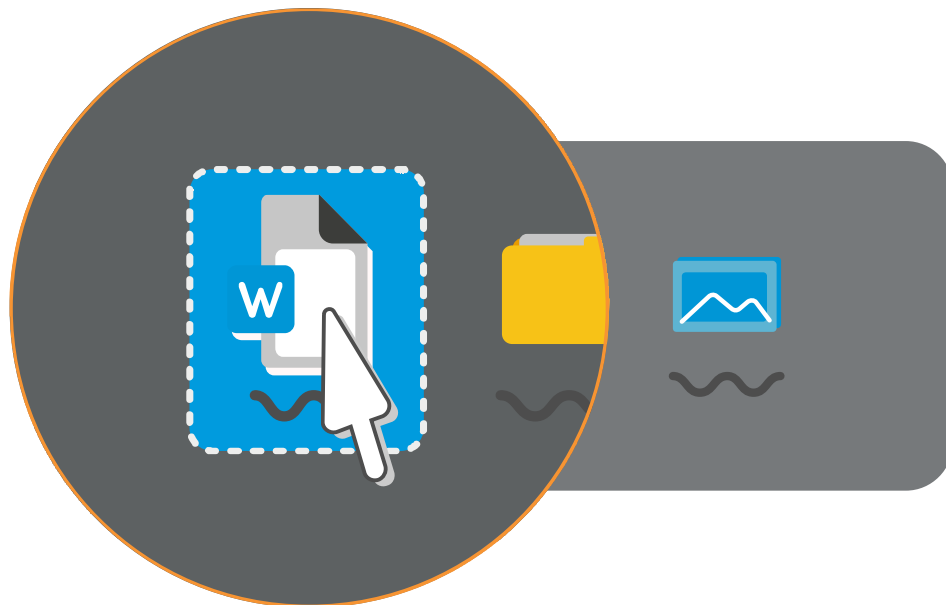
Most Windows applications respond to clicks, double clicks and a combination of drags and holds to perform actions.

The computer control grids sets in Grid allow you to select which type of click or action you want to perform. The click options under Computer control in **Settings - Access - Pointer** allow you to change how you perform that click.

Zoom to click

The zoom to click option allows you to focus in on the area of the screen you want to interact with.

Dwell to click

The dwell to click option allows you to hold the pointer of the area you want to activate. Holding the cursor in place for a set time will
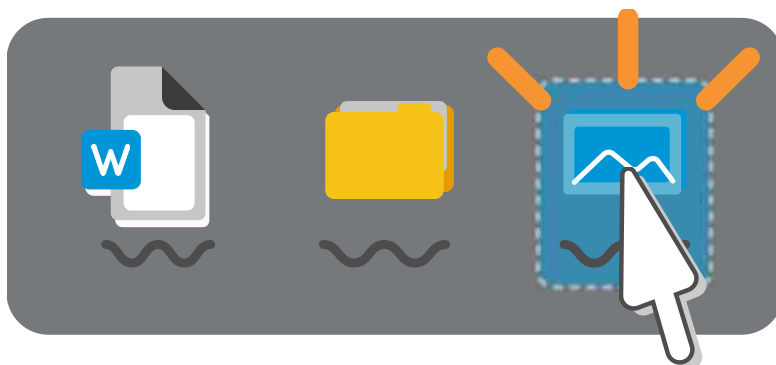
You can adjust the amount of magnification and the time the zoom takes.

activate your chosen click.

You can adjust the time it takes the dwell to complete and the colour of the highlight.

Press switch to click

If you have a switch connected to your Grid Pad, you can use this to activate your selected computer control click.

Changing your pointer settings in Windows

Windows has additional settings you can use to make your pointer more visible and adjust the speed it moves on screen.

You can find these settings under **Start menu - Settings - Devices - Mouse**.
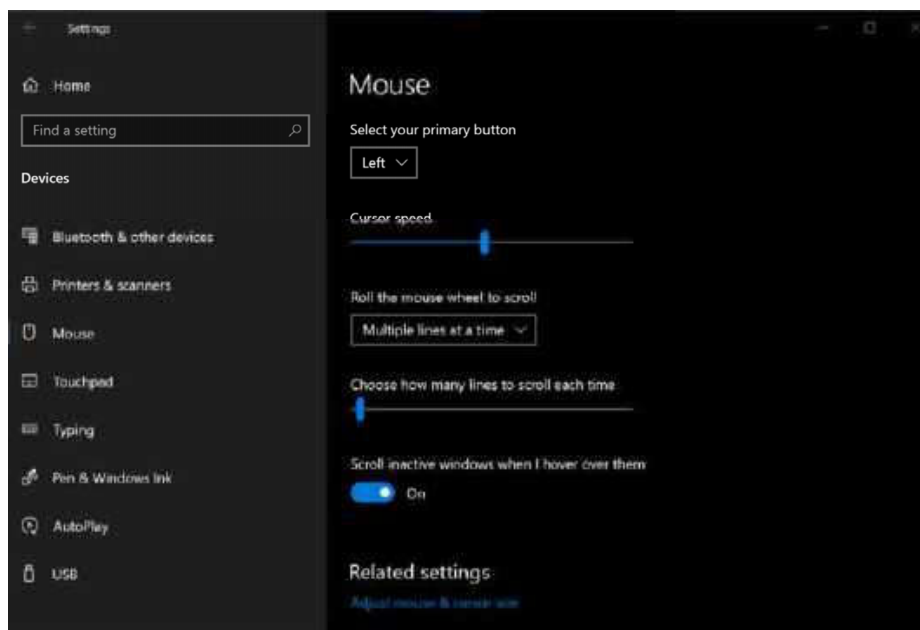
Here you can adjust which button of your device is the primary button. You can also adjust the speed.
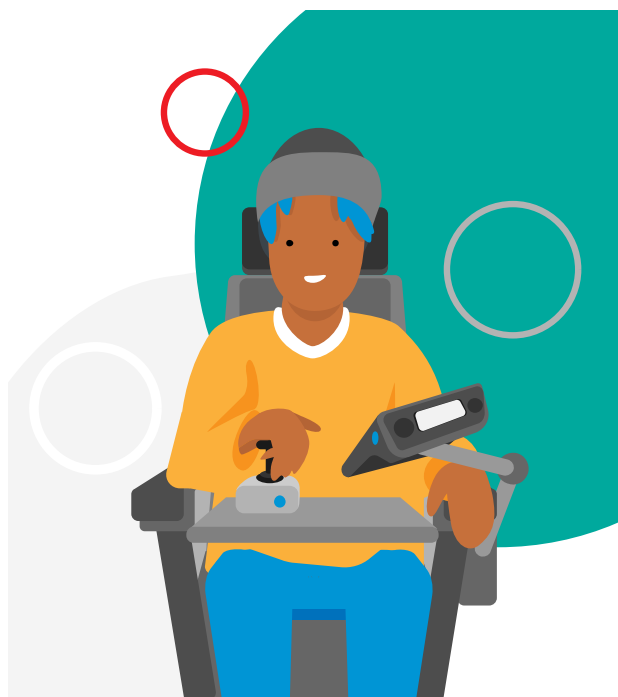
Selecting **Adjust mouse & cursor size** allows you to make the cursor more visible by adjusting its size and colour.

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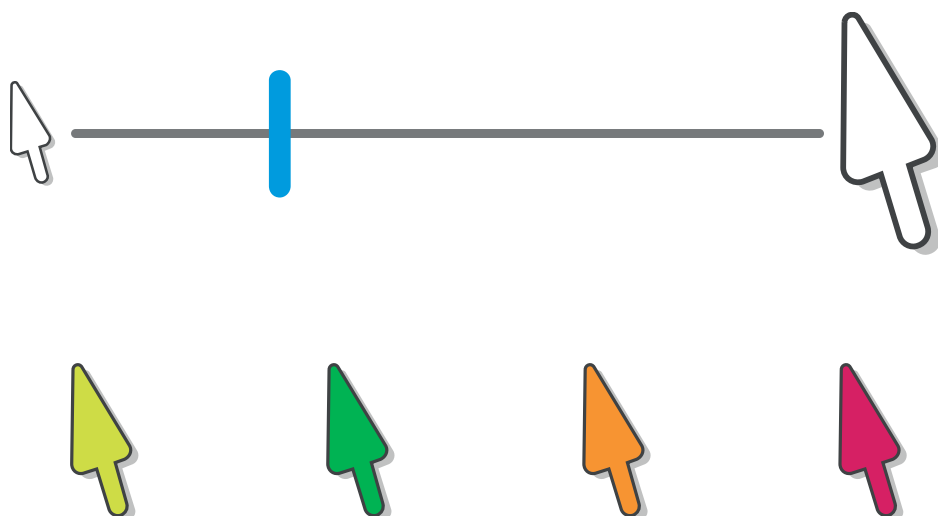
28   Pointer access case study

Ezra is in their early 20s and accesses their device using a **Joystick**. A T-bar handle on their joystick helps them maintain a stable grasp and better control of the **pointer** movement on their device.

Ezra's Grid Pad is mounted on their wheelchair, and the joystick is on the wheelchair tray. They like the joystick because the pointer accelerates towards their target as they hold the T-bar end in position and slows if they releases.

Ezra attends a residential college and uses their Grid Pad to support their spoken communication, to communicate remotely with

friends and family, and access social media. They also use their device to control doors to their room and some areas of college as well as things like their TV.

Ezra uses a grid set called **WordPower 100**. Recently their college tutors have added a cell that takes Ezra between their WordPower grids and **Computer Control** grids.

In their Grid settings, Ezra is set up with **pointer access** and **click to activate** and they use the **button** on their joystick for this.

In settings, Ezra's pointer **Highlighting** is set to **magnify** and **colour cell**. This helps provide a larger cell area when they get to where they want, giving them, time to release the T-bar, or compensates for occasional small knocks as they reach for the left click button.

29 Switch access

Switch access is when you interact with your Grid Pad using external switch devices.
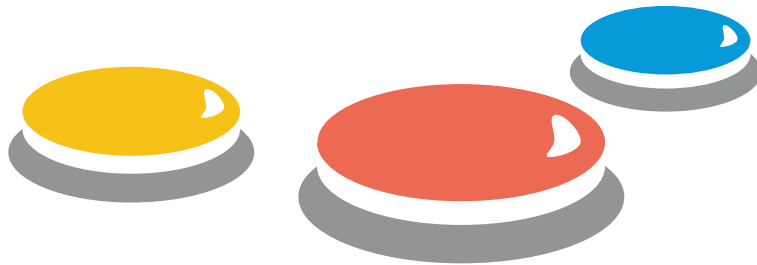
Switches are available in many shapes and forms, from simple buttons to complex devices that are activated by facial expressions or muscle movements.

You can connect **two** switches to your Grid Pad.

These use the **3.5mm switch ports** on the back of the device, underneath the port cover.

You can also connect switches using the **USB ports** or using **Bluetooth**.

Typically, when a switch is pressed, it is considered **on**, or **activated**. When it is released, it is **off**.

Connecting switches
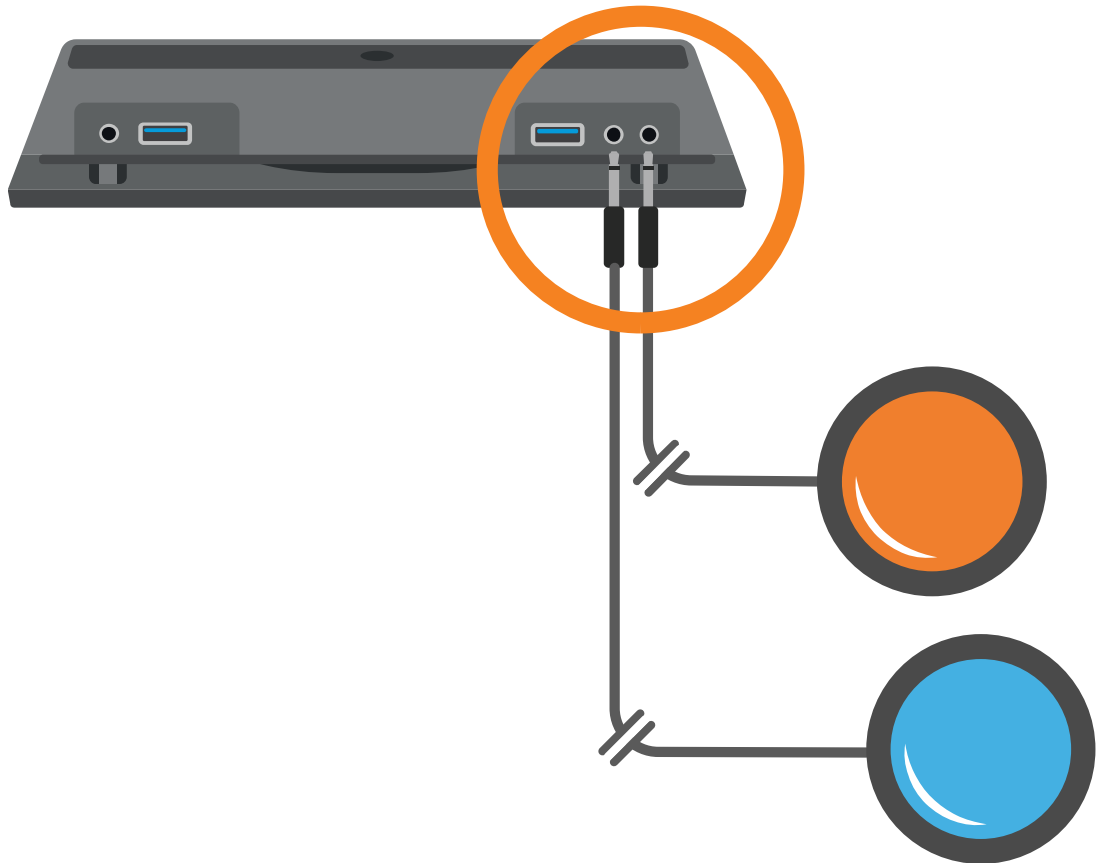
Remove the port cover and insert your switch plug into the port.

If you are using one switch, it is best to connect to the first port, labelled **S1**.

Once connected, your switch will need to be set up in Grid 3.

Adding a switch in Grid

Switch setup can vary in complexity. You will find that you have many options to make using one, or more switches together, suit you.

This guide will show you the basic concepts that will help you get started.

You can find switch settings in **Menu - Access - Switches.**

On the Switches settings window, select **Connection.**

Under the drop down box, select **Grid Pad switches**.

You can toggle your switch and the switch icon will turn green to show it is activated.
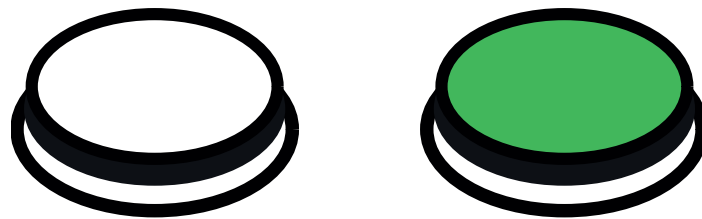
Tap the **back** button to return to the Switches window.

Your switch is now connected in Grid, however you will need to choose how it works when it is activated.

Activation

The activation drop down list allows you to

choose what happens on your grid set when a switch is activated.

You can choose from **Switch scanning**, **Switch joystick** or **Switch elimination**. You can configure how your chosen activation method works with the **Activation** button.
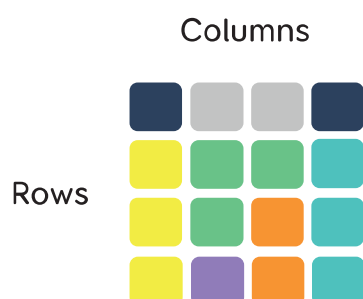

Switch scanning

Switch scanning allows you to locate the cell in Grid that you wish to activate, by following a highlight moving through the grid set.

Grid sets are arranged in **rows** and **columns**.

Selecting **Activation** will show your Switch scanning options.

Under the **Advance** heading, you can use the drop down menu to choose how you would like to **scan** across your grid sets.
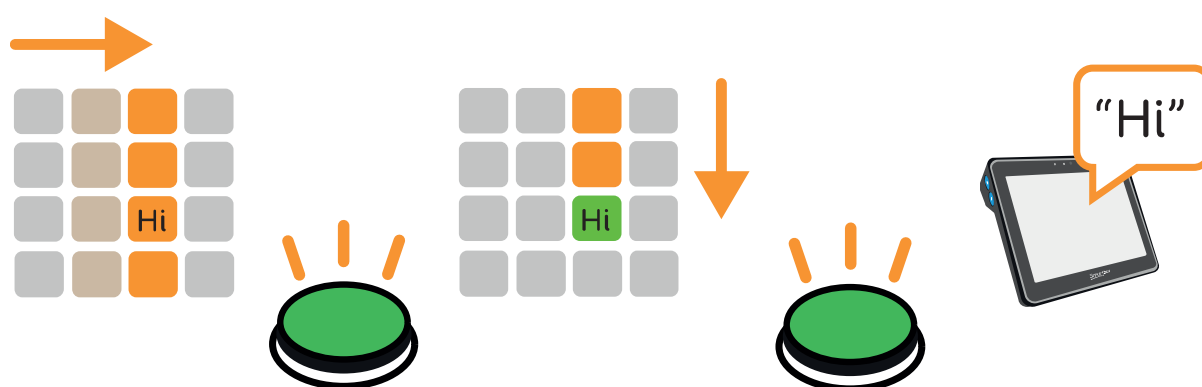
An example of a **column** then **row** scan

You can also select if you would like the scan to **automatically** advance, or if you want to use another switch manually control the scan with **taps** or **holds**.

You can control the **speed** the scan advances. You can also choose if you would like the scan to automatically start.

You also have a number of **visual options** to change how scanning looks. These are found under the **Highlighting** heading.
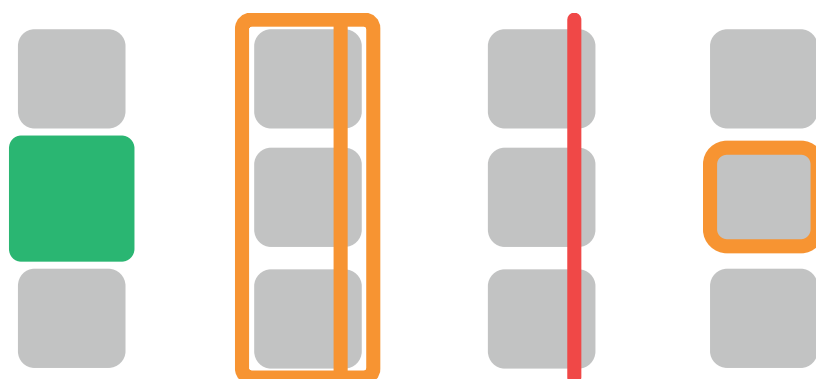
Examples of cell highlighting when switch scanning

You can adjust the **colour** and type of highlight as well as any magnification.

You can also add a **spoken description** or sound that follows the highlight.

Switch joystick

Switch joystick enables you to use a joystick or a set of switches to select the cells in your grid. These can either be connected by USB, with an

adapter or Bluetooth.
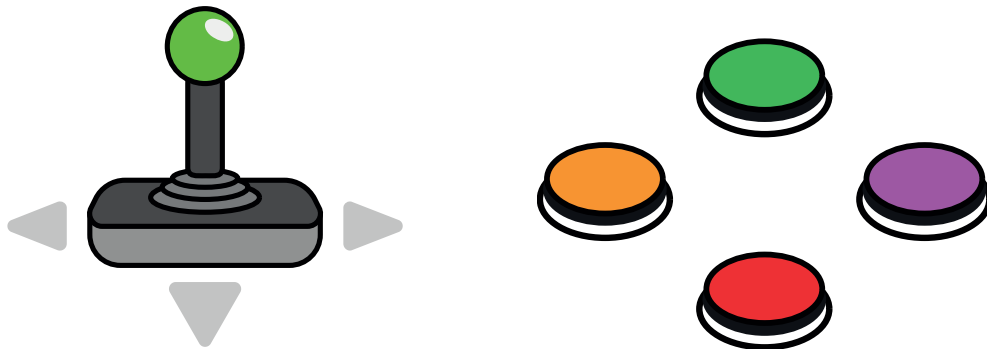
Selecting Activation will let you choose how the joystick or set of switches will act.

Under the **Move** heading you can choose how the joystick or switches respond with either holds or taps.

You can add an additional switch to activate cells, or choose dwell to activate the last highlighted cell.

Switch elimination

The switch elimination method requires two or more switches connected to your Grid Pad.

With switch elimination, your grid is split into sections that are activated by an assigned switch.

In the example below Switch 1 triggers cells with a red background and Switch 2 triggers cells with a blue background.
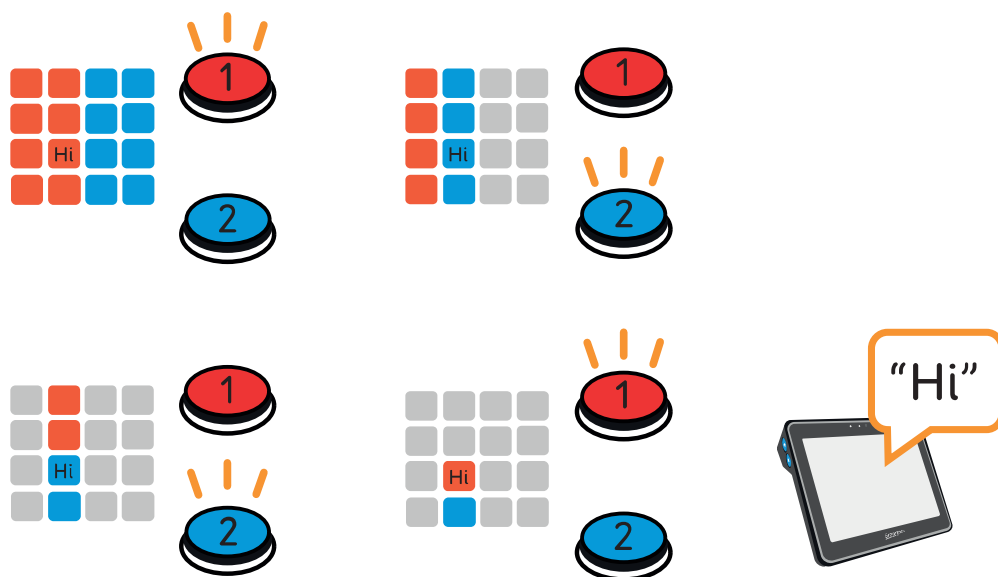
Under the Activation button, you can configure switch elimination to use 2 or 4 switches.

You can also change the colours of each block and configure additional switches to stop and go back between elimination steps.

Switch commands

You can assign specific **Grid commands** to a switch.

These commands will be **activated** when the switch is pressed.

You can add **multiple commands** to a switch if needed.

You can set a switch to trigger a sound, go to the home page of your grid set or turn on the TV.

To add a switch command, select the **Commands** button.

The Switch commands screen will show any switches that have commands assigned.

To add a new switch, select the **Add switch** button.

Choose a **connected** Switch.

A switch that is being used for access can also have commands assigned to them.

Select **Add command** and find the command you wish to trigger.

If the command has additional options, such as specifying which grid to open, or what sound to make, selecting **Next** lets you customise the action.
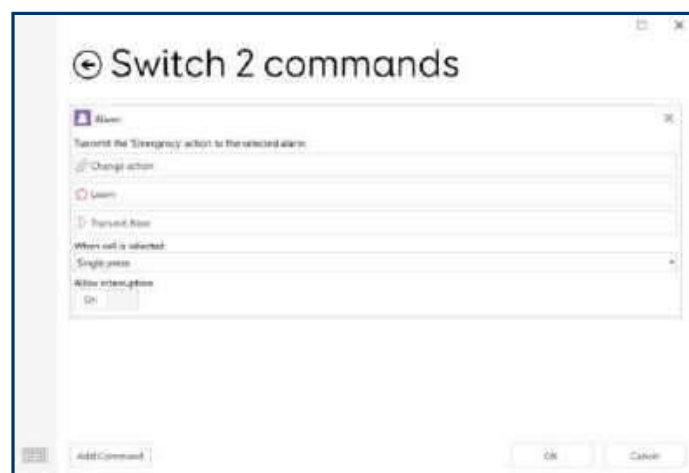
Repeating this process will add additional commands, and you can drag and drop each command to change the order in which they will be triggered.

Switch presses

You can filter and adjust how your switches respond to accidental presses under the Switch presses button.

This screen will let you adjust the time between presses, and if you want to adjust how long a switch can be held for.

Alternative switch methods

You can use other input devices as a switch, such as a mouse, keyboard, game controller or the Grid Pad touch screen.

Select the **Connection** button from **Menu - Settings - Access - Switches.**

Under the drop down list you can select from a number of other devices that can be used as a switch.

Joystick

Use a USB or Bluetooth connected Joystick or game controller as a switch.

Each button on the device can be configured as a separate switch.

If you are using a switch interface, this may also be configured under the **Joystick** options.

Keyboard
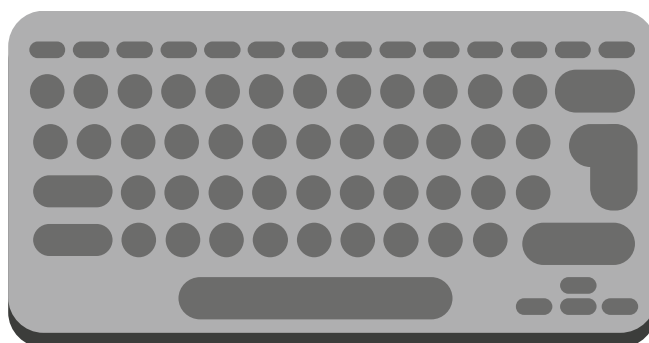
If you attach a keyboard to your Grid Pad either with USB or Bluetooth, you can use any key to act as a switch.

This is useful for trying more complex set-ups when you might not have all the switches available to you.

Be aware that if you have set a key to act as a

switch, you will no longer be able to use that key normally while Grid is open.

Mouse

You can configure the buttons of a connected mouse to act as a switch.

As with assigning a keyboard key, you will not be able to use the button to navigate your Grid Pad once it is assigned as a switch in Grid.

Touch screen

With touch screen selected, the whole screen becomes a single switch.
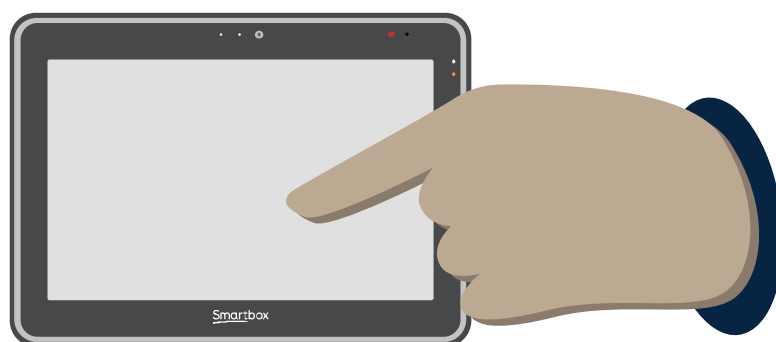
Be aware, to continue to edit or access your Grid Pad outside of Grid, you will need to connect a mouse and keyboard.

Other devices

Most switches connect either to your switch ports, or to the USB ports and are shown under the **Joystick** heading.

Some devices that connect to the USB port, or require specific software to operate, may show as switches under the **Third party input device** option.

30 Switch access case study

Diego is learning how to use Grid with a switch. Previously, his **switch scanning** was set to move forward automatically, which meant he made a lot of mistakes and quickly lost confidence.

His communication partner has decided to try **partner assisted scanning**. The communication partner uses one switch to move the scan forward, and then Diego uses
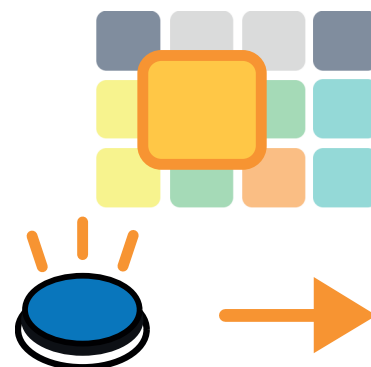
his switch to **select the cell** he wants. In Grid settings this is called **Tap to advance**.
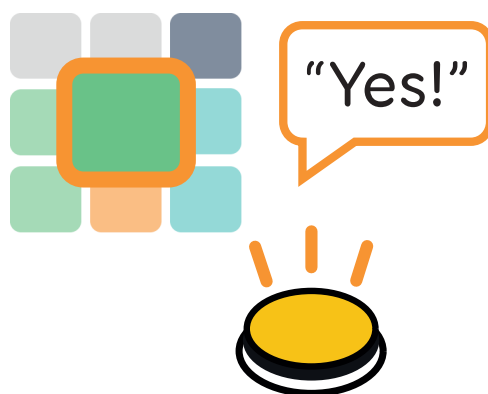
This method allows the communication partner to set the pace to a speed that works well for Diego. If they can see Diego reaching for his switch, they can pause to give Diego time to hit it.

The communication partner can also turn on **Speak description when Highlighting**, to give Diego some additional feedback on the cells he is scanning.

As Diego moves on with scanning, his settings can be changed to **Automatically advance**.

31 Voice activation

Voice activation allows you to trigger cells in Grid with voice commands.

"Hey Grid, TV! On! Channel Two!"

This can be a great tool for using Grid to control other devices like TVs and stereos.

To use this activation method, you will need to use either the microphone built into your Grid Pad, or attach a headset using the USB ports or Bluetooth.

Once set up, you can speak a wake up phrase such as **"Hey Grid 3"** followed by the cell label you want to activate.

You can continue to add commands and navigate your grid set. After a period of no commands, Grid will rest, and you will need to

use the Wake up phrase again.
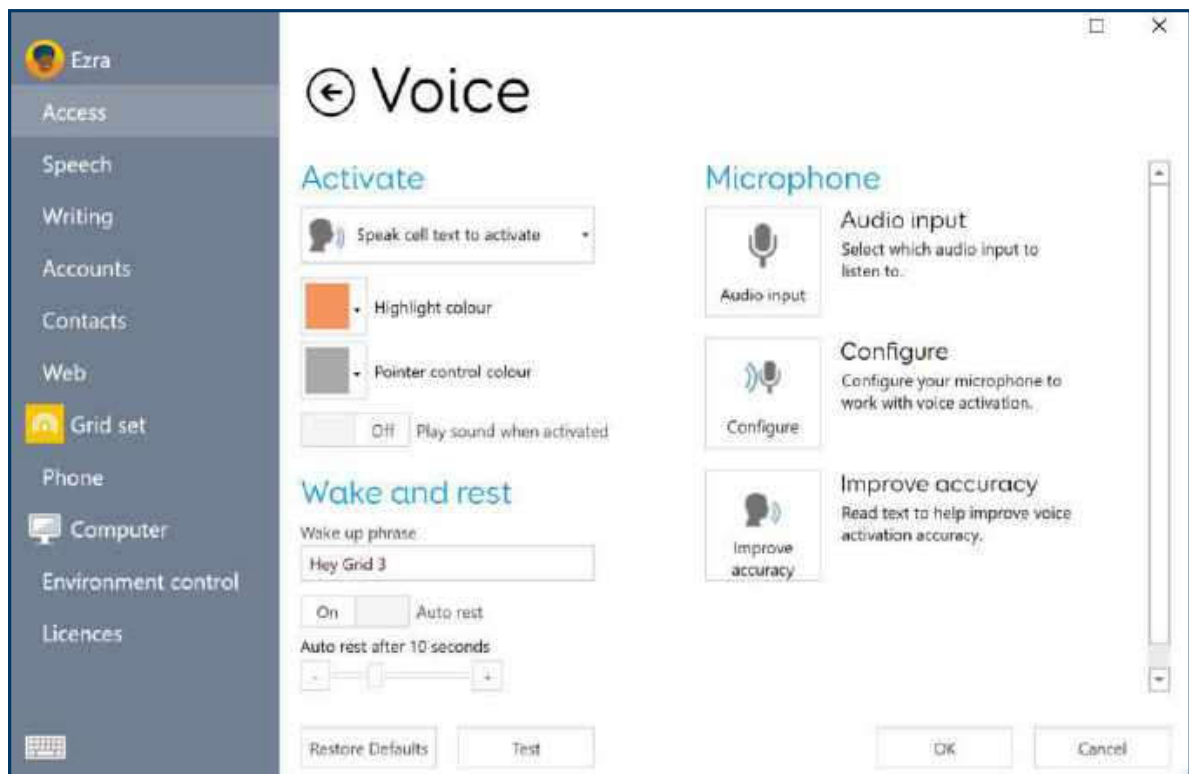
Improving voice accuracy

You have a number of options to improve how Grid responds to your voice.

The **Configure** and **Improve accuracy** options are tools that will help tweak your settings to ensure your voice is being picked up correctly.

If you are using your Grid Pad for voice access, you may also want to consider a dedicated USB microphone which can improve accuracy.

You can also use Bluetooth headsets and microphones.

Grid Pad 10s features

Your Grid Pad 10s has many extra features for you to take advantage of.

This section explains these features so you can turn your device on and off remotely, connect a smartphone and send your speech and more to the second screen.

32 Remote Power Button

Your Grid Pad has a **Remote Power Button** included.

The Remote Power Button allows you to **turn your Grid Pad on and off**.

It can also be used to **setup switches away from the device**.

The Remote Power Button comes paired with your Grid Pad out of the box.

Switch port 1   Switch port 2

Power button

Smartbox
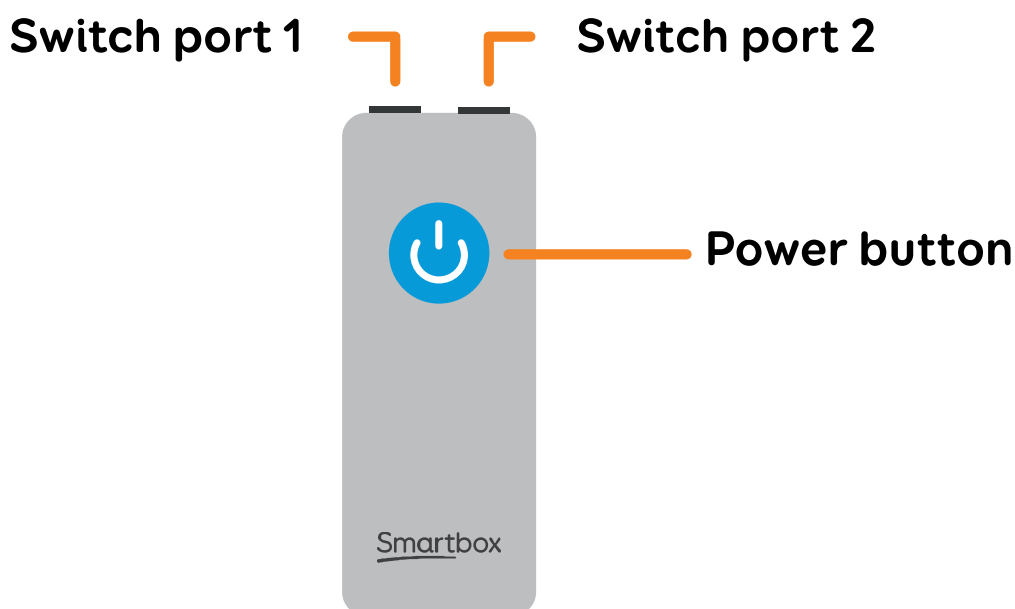
Switch port 1 also functions as a power button.

You can configure how your Remote Power Button behaves using Grid.

You can find the settings in **Menu - Settings - Computer**.
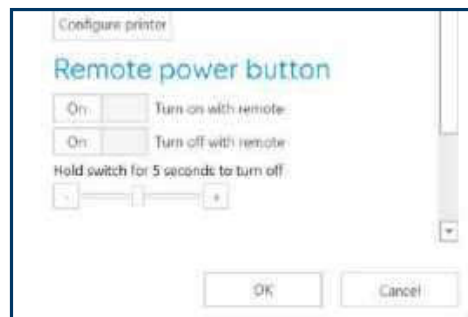
From this screen you can toggle if you want your Remote Power Button to **Turn on with remote** and **Turn off with remote**.

You can also choose how long the button or connected switch needs to be pressed before the device powers off.

33 Using the Remote Power Button switch ports

The two ports on the top of your remote power button allow you to connect one or two switches with a standard 3.5mm plug.
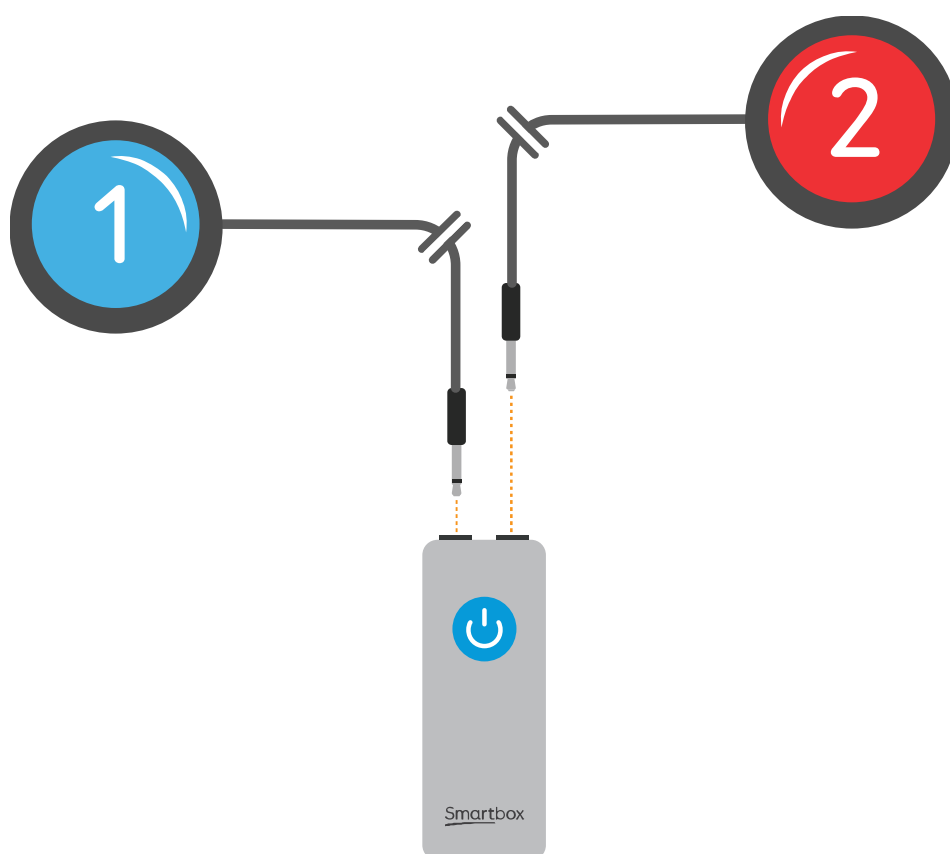
Switch port 1 can also act as a power button, allowing you to use a connected switch to turn your device on and off.

The switch ports of the Remote Power Button are linked to the switch ports of the Grid Pad.

A switch attached to **Port 1** of the Remote Power Button will do the same thing as a switch plugged in to **Port 1** on your Grid Pad, so you can use it to activate cells in Grid and toggle the device to power off with a long hold.

34 Changing the batteries

The Remote Power Button uses two AAA batteries.

To change the batteries of your remote power button you need to use a screwdriver to remove the four screws from the rear of the device.

Remove the battery cover, and the spent batteries and replace with new ones.
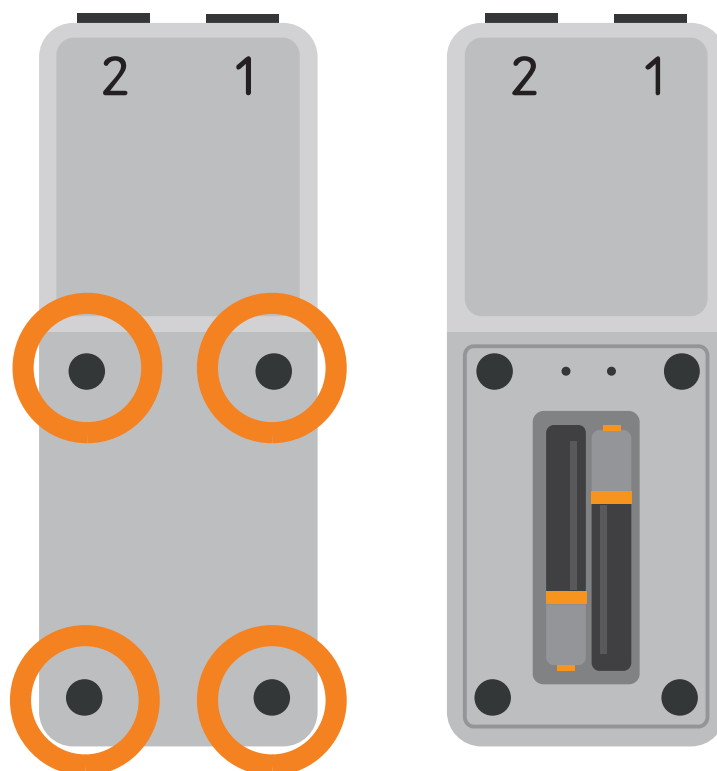
Pairing the Remote Power Button

The Remote Power Button is paired with your Grid Pad out of the box.

You may need to pair it again after changing the batteries.
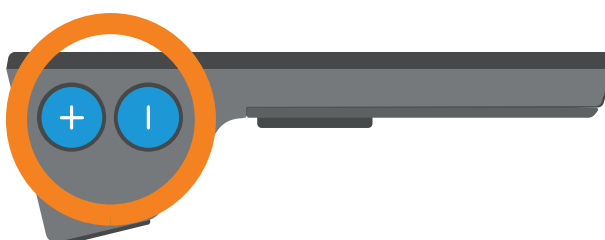
Press and hold both **volume buttons** on your Grid Pad for **10 seconds**. The LED on the front of the Grid Pad will flash.
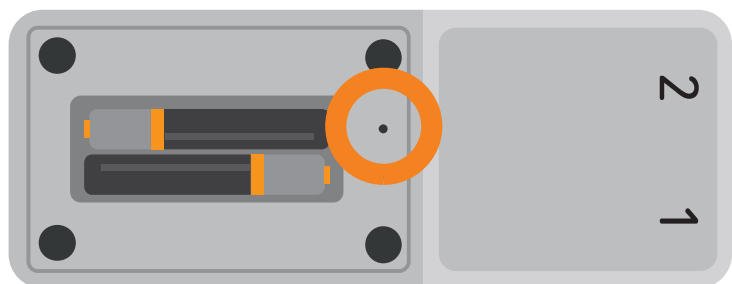
Use a **pin or thin wire** to press in the **pairing button**, the **left hole** above the batteries. Press this in for **5 seconds** until the green LED illuminates to confirm pairing.

36 Daylight screen

The screen on you Grid Pad is a daylight bright screen.

This means it can be seen clearly in bright sunlight when it is set to its maximum brightness.

Note that the brighter the screen is set, the more battery it will use. Around 20% brightness is suitable for indoor use.

Controlling the brightness of the screen

Windows
You can adjust the brightness of the screen in **Settings - System - Display.**

Here you can also toggle **Night light** which reduces the amount of blue light from the screen during the evening and night. This can be useful if you are using the device for long periods.

Grid 3

You can control the brightness of the screen from the settings or options grids of many grid sets.

Look for the brightness commands.

These sometimes are single cells that increase the brightness when selected.

37 Using the second screen

The second screen on your Grid Pad will **display your sentences as you speak** from Grid 3.

You can change how it acts with settings found within your grid sets.

You can also turn the screen **on or off** from within a grid set.

How the screen works

The second screen reflects what is in your grid set's **chat window**.

Your spoken sentences are displayed here.

Your spoken sentences are displayed here.
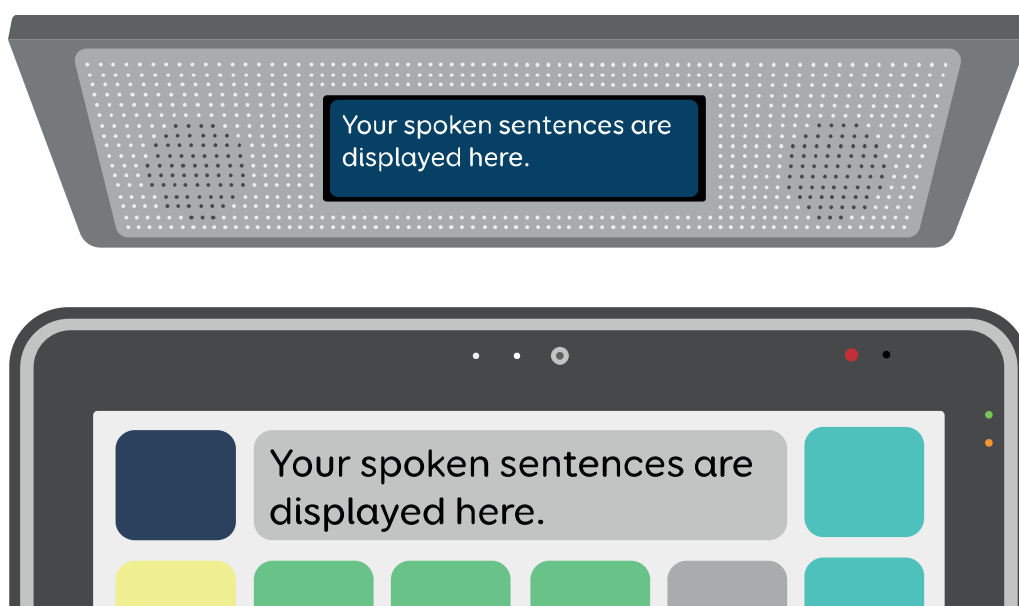
Grid commands that effect the second screen

Speak as you type

If you set Grid to Speak as you type, the second screen will display each word as it is entered.
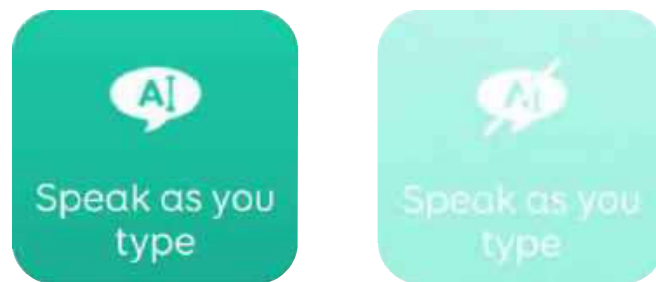
If you toggle **Speak as you type** to off, the second screen will show three animated dots, to show that you are currently writing. Your message will be displayed when you select **Speak**.

You can find additional options for **Speak as you type** in the Grid Settings. You can find these under **Menu - Settings - Speech**.
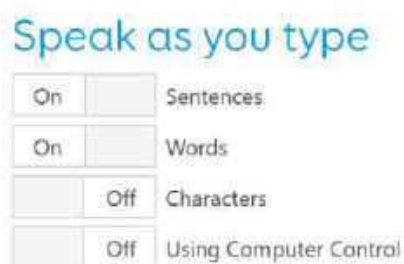
Here you can toggle between **Sentences, Words, Characters** and if speaking should be enabled whilst using Computer Control.

Second screen
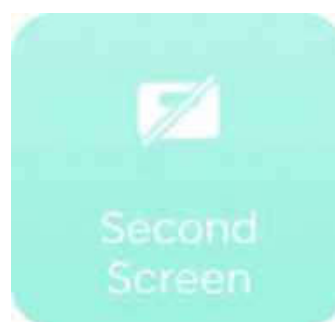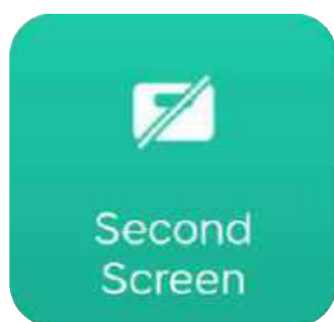
Toggling the Second screen cell will turn the screen **On** or **Off**.

Mute

The second screen will continue to display your messages, even if the volume of the Grid Pad is muted.
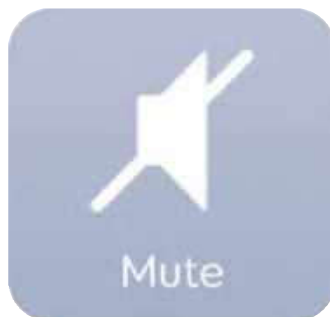
This means you can share a quiet message, without broadcasting loud speech.

Adding these cells to your grid sets

You can find the Second screen, Speak as you type and Mute cells in the **settings** or **tools** of many grid sets.

You can also add these to an existing grid set in **Edit mode**.

38 Using infrared

Your Grid Pad has both an infrared (IR) receiver and transmitter.

The IR receiver is used to learn controls from IR remotes.
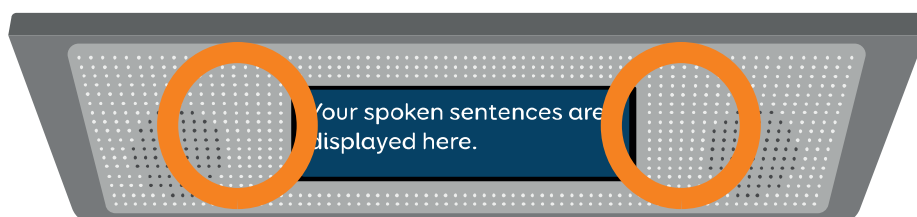
The IR transmitters are used to send IR commands from Grid, to devices such as TVs and stereos.

Setting up an infrared remote

Grid includes **Servus environment control** grid sets which are ready for variety of devices and appliances.

Using Infrared remote files

Smartbox keep a list of different IR remote codes for many home entertainment devices.

Before you start setting up your devices, check the list to see if we have the relevant codes pre-programmed to save you time. These files are stored as .remote files. To find our current list of remotes visit:

thinksmartbox.com/ir-remotes

Installing a remote file

To install a **.remote** file, download the file you need from our website, close down Grid 3 and open your **File Explorer**.

Navigate to: **Users\Public\Documents\ Smartbox\Grid 3\Environment control Accessories**

Copy the .remote file into this folder and open Grid 3.

In Grid 3 go to **Settings - Environment control** and you will now see the new device listed.

Setting up an infrared remote manually

To set up a remote manually, open Grid 3 and go to **Settings - Environment control**. Under **Accessories** select **Add**.

You will see a list of accessories. Select the type you would like to configure, and you will be taken to the learning screen.

Here you can name your device, change the icon and learn remote actions.

Select the action you wish to learn, for example **Power**, then tap the **Learn** button on the right side of the window.
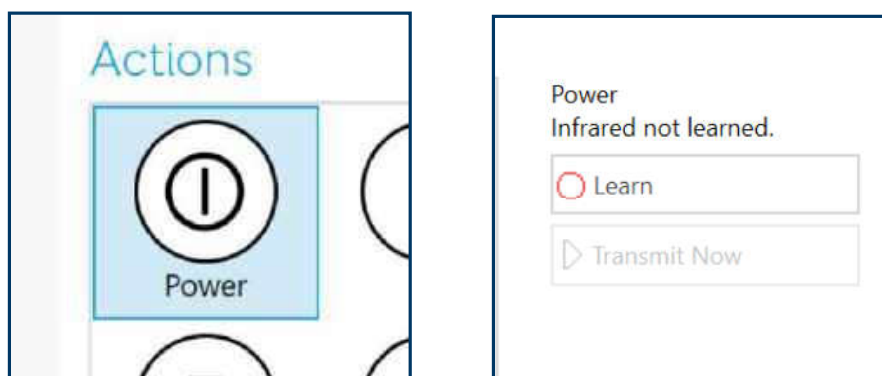
The **Learn infrared** window will appear and you will be asked to follow the instructions on the screen.

Point your remote directly at the front of your Grid Pad, at least 2 inches away.

You will see the red receiver LED in the top right.

When the IR code is received, this LED will blink once.

Once complete, the action will turn green and you can test it by tapping Transmit now. Follow these steps for each corresponding action that appears on your remote, then click OK to save and go back to the Environment control window.

Controlling multiple accessories

If you are controlling more than one of the same

type of accessory, you can use auto content cells in your Environment control grid sets.

If you have a TV in the bedroom and in the living room for example, you can create two Television auto content cells to choose which TV you are sending commands to.
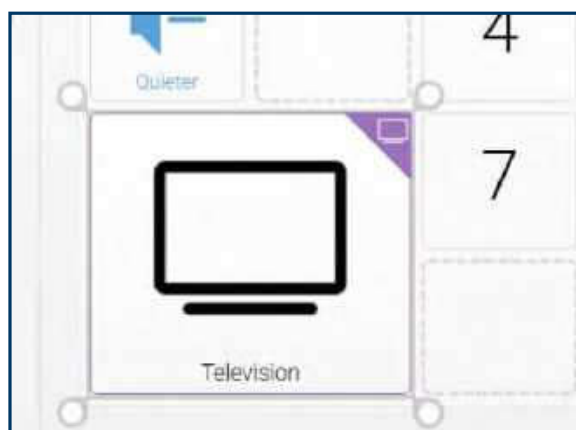
Unique infrared commands

If you have an accessory or toy with only a few functions, you can use the **Infrared** command to create a cell of a specific action.

When you add the Infrared command you will be taken to the **Learn Infrared** window. Follow the

instructions on the screen and click **OK** to add the command to a cell.

41 Connecting a phone

You can connect an **Android** or **Apple iPhone** to your Grid Pad so that you can read and send SMS messages and make and receive phone calls.

This uses **Bluetooth**, so you will need to have your phone on and near your Grid Pad.

You can connect **Android** devices running Android 6 and above or **iPhone 6** and above running the most recent OS (iOS13 at time of writing).

Open Grid, select the menu and select **Settings - Phone**.
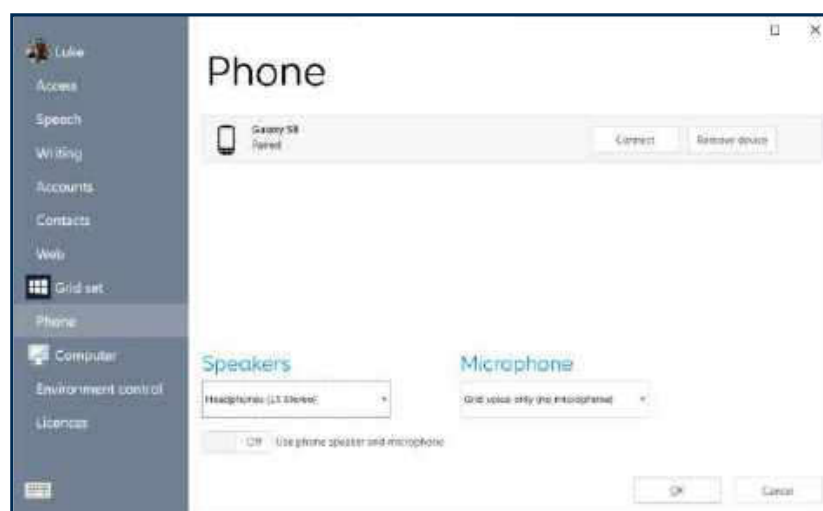
Discoverable phones will appear on the **Phone** screen.

Tap **Connect** next to your phone to begin pairing.

Your phone will display a notification to confirm, often with a pin code. Select '**Confirm**' or '**Yes**' on this to continue pairing.

You may also get a couple of additional prompts on your phone while it pairs. These are to allow Grid access to various functions. **Accept all of these**.

Once pairing is complete you will see a list of what your phone can do while it is connected to Grid.

Your phone will also begin to sync messages and calls, so you may start to see pop ups in Grid.

42 Programming buttons

The volume buttons can be programmed in Grid to act as switches.

They can be assigned a number of commands, so you can use them to close a grid set, open a specific grid, adjust brightness and more.

Open **Settings - Access - Switches.**

Tap **Connection.**

Select **Keyboard.**

Choose a switch you want to configure and tap **Change Key.**

A new window will open, press the **Volume Up** or **Down** button on your Grid Pad.

Tap **back**.

You can now assign **commands** to your button by selecting the switch.

Looking after your Grid Pad

Your Grid Pad is a tough device, but to keep things running smoothly you need to keep your device up to date, backed up and clean.

If you do have any problems, you can also find out where to get support.

43 Updating Grid 3

Grid 3 has regular updates that introduce new features and content, as well as support for new access methods and devices.

If your device is online, Grid 3 will scan for updates and display an icon in the menu bar if a new version is available.

Tap the icon and follow the on screen instructions. Grid will restart as part of this process.

Checking for updates manually

Open the **Start menu.**

Browse to the **Smartbox** folder.

Select **Smartbox Update.**

This will update all Smartbox software on your Grid Pad, including Grid, Look to Learn and more.

Early Access

Before an official release, Grid enters a phase called **Early Access**. This is a preview release that demonstrates new features, and is the final stage of testing.

You can turn Early Access on in **Settings - Computer**.

It is **not recommended** to use Early Access if your Grid Pad is your primary communication device.

44 Updating Windows

Your Grid Pad's operating system, Windows, receives frequent updates from Microsoft. These keep your device secure and bug free as well as introduce new features.

These will normally download while your Grid Pad is connected to the internet. These are then installed when your device is shut down or restarted.

Checking for updates manually

Open the **Start** menu.

Go to **Settings** - **Updates & Security** - **Windows update,**

Windows will download any updates that are available and prepare to install them. Most updates require you to restart your device.

Backup your grid sets using Dropbox

45

It is important to keep a backup of your grid sets and user profile.

You can link your **Smartbox Account** to a Dropbox account under **Settings - Accounts**. Select **Dropbox** then log in to link your accounts.

When your Smartbox Account is linked to Dropbox, your grid sets and message banked files will be uploaded automatically.

This also means you can use Grid 3 on Windows and Grid for iPad and keep your grid sets synchronised.

46 Backup your Grid user

You can take a complete copy of your Grid user from the Grid 3 User screen.

Go to **Menu - Settings** and select your user name.

At the bottom of the Settings window you will see the **Backup User** button. Tap this and you can choose where to save your backup.
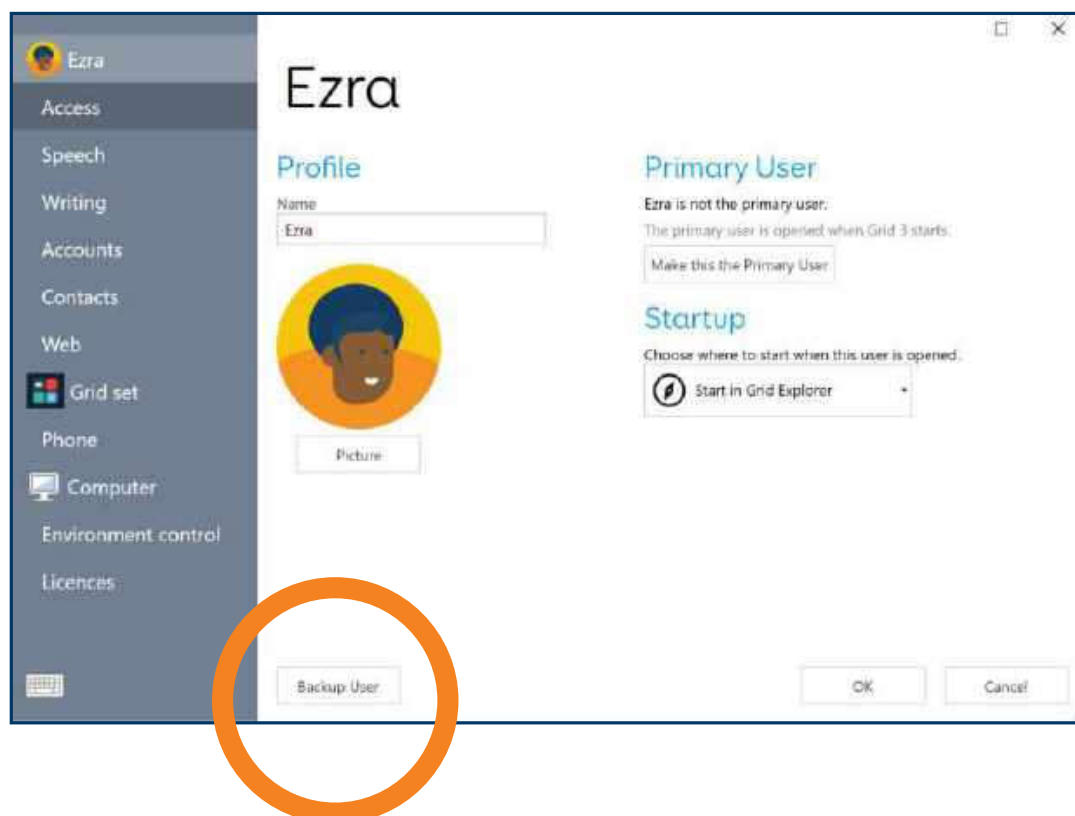
What information gets backed up?

- Settings
- Grid sets
- Message banked files
- Your Grid Explorer layout
- Predictions
- Dictionary
- Contacts
- Notes
- Email and text messages.

Restoring a backup

You can restore your user backup on the User select screen. If you are already in Grid you can access this by tapping **Menu - Users**.

On this screen select the **Restore Backup** button, locate your backup file and tap **Open**.

47 Cleaning and storing your Grid Pad

The front glass of your Grid Pad can be cleaned using a microfibre cloth. Your Grid Pad should be cleaned regularly with an antibacterial wipe.

You can also use alcohol-based wipes to clean both the screen and the outer case of the Grid Pad.

Do not use spray cleaning fluid, gel, or polish directly onto your Grid Pad, or immerse the device in water.

Storing your Grid Pad

When not in use, your Grid Pad should be stored safely.

Do not rest or press hard objects against the screen.

Disconnect any devices plugged into the ports of the Grid Pad, including USB ports, switch ports and the power lead.

Storing the Remote Power Button

When packing away your Grid Pad, we recommend **removing** the AAA batteries from the Remote Power Button and disconnecting any switches.

48 Antimicrobial properties

Grid Pad communication aids use Sanitized® technology within the case and screen.

This technology is clinically proven to slow the growth of bacteria and the spread of viruses by using small particles of silver which prevent microbes from replicating.

You can find this finish on:

- Inhibits bacteria and virus growth
- Prevents unpleasant odours
- Cannot be removed through cleaning

antimicrobial
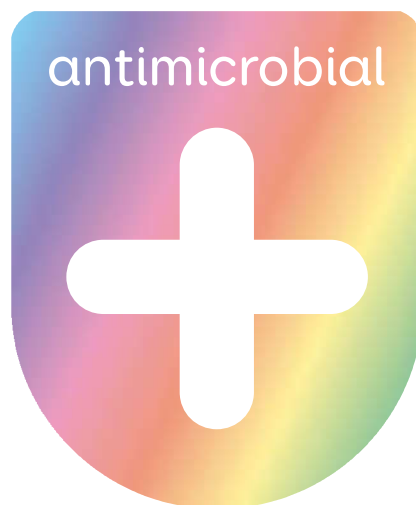
Support

Our Support team are here to help you.

Online chat
thinksmartbox.com

Email
support@thinksmartbox.com

Phone
UK: 01684 578868
US: (844) 341-7386

Repairs
Our Repairs team can look after
your device in case of damage.

50 Finding your model and serial number

When you contact our Support team, please have your device model and serial number to hand. This helps us identify the device you are having an issue with!

You can find the serial number on the back of your Grid Pad.

The serial number for the device is placed under the stand, lift up the stand and the serial number is found here:

Smartbox

SN123456789

Supplier support contact

_____

_____

Contacting Smartbox

Our support team are here to help.

You can reach our **UK** team weekdays on

01684 578868

You can reach our **US** team weekdays on

(844) 341-7386

You can email us at

support@thinksmartbox.com

Grid Pad 10s

Safety and compliance

Grid **Pad** 10s

This booklet contains all the information you should be aware of before using your Grid Pad 10s.

It also details compliance and the technical specification of your Grid Pad 10s.

Contents

Technical specification

Grid Pad is a communication aid designed for disabled people who have limited speech or complex access needs.

Model Number: GP10SA

Operating system	Windows 10 Pro
Software	Grid 3
Processor	Intel® Core™ i5-7Y54, 1.2GHz Base, 3.2GHz Turbo
Memory / RAM	8GB
Hard drive	SSD, 256GB
Display	10.1" 1920 x 1200 daylight bright display with toughened glass and anti-glare finish
GPU	Intel HD Graphics 615, 950 MHz
Second screen	3.9" 480 x 128 partner display with toughened glass and anti-glare finish
Sound	High quality integrated speaker
Weight	1.4kg
Battery life	7 hours AAC typical use 4 hours intensive use 58.31Wh 7880mAh Lithium-Ion

Charge time	5 hours
Tablet camera	2MP front, 5MP rear
Dimensions	260 x 189 x 60 mm
Access	2 x 3.5mm switch ports 2 x USB 3.0 port 3.5mm headphone port touch screen
Environment control	GEWA Infrared
Connectivity	Dual band wireless (AC 8265) Bluetooth 4.2 LE
Mounting plate	Daessy and Rehadapt
IP Rating	IP54
Medical	Class 1 Medical Device (MDR 2017/745)

Operating environment

Temperature	0 - 35°C
Relative humidity	0 - 90%
Atmospheric pressure	70 kPa to 106 kPa

Storage and transport environment

Temperature:	-20°C - 60°C
Relative humidity:	0 - 90%
Atmospheric pressure:	50 kPa to 106 kPa

Safety classification

Protection against electrical shock	Class II and internally powered
Mode of operation	Continuous

Symbol explanation

Symbol	Meaning
🎧	Headphone port
⚡	Charging port and indicator
S1	Switch port 1
S2	Switch port 2
CE	Conformity European symbol to declare conformity with EU legislation.
FC	Federal communications commission symbol to declare conformity with US legislation.
🗑	Waste electrical and electronic equipment symbol to indicate you should dispose of this equipment in accordance with local regulations.
⏻	Power button symbol
+	Increase volume symbol
-	Decrease volume symbol
[i]	Read the manual symbol
📖	Read the manual symbol
IP54	Ingress protection rating 54
UKCA	UK Conformity Assessed symbol to declare conformity in the UK

Intended use, user and environment

Grid Pad 10s has been tested as a Class 1 medical device. Specifications and standards have been listed in the Compliance section of this manual.

Please consider these safety warnings to ensure safe operation of your Grid Pad.

Application

Intended Use

- It is used as a voice output communication aid (VOCA)
- It is used to control a Windows computer
- It is used to operate external devices via environmental control (EC)

Intended User

It is designed for individuals with complex communication and/or access needs. Complex communication and/or access needs may arise as a result of a variety of conditions including but not limited to:

- Developmental disorders, e.g. cerebral palsy, developmental verbal dyspraxia, autistic spectrum disorder (ASD), developmental language disorder (DLD), global delay.
- Acquired disorders, e.g. cardiovascular accident (CVA/stroke), dementia, traumatic/acquired brain injury (TBI/ABI)

It may also be used by individuals with complex access needs in the absence of communication difficulties for computer control,

environmental control and non-face-to-face communication
e.g. including but not limited to individuals with:

- Spinal cord injury
- Degenerative neuromuscular disease (e.g. muscular
  dystrophy, spinal muscular atrophy)

Intended environment

It can be used in a variety of settings in which the individual
is likely to wish to utilise it for the above intended use. These
settings may include but are not limited to:

- supported living homes
- nursing care facilities
- schools, colleges, universities
- in the community, e.g. shops, restaurants
- hospitals (acute, rehabilitation and community)

Significant contra-indications, warnings and precautions

Although designed to assist with expressive communication, it
should be used in combination with a range of augmentative
and alternative communication (AAC) methods and therefore
should not be relied on in isolation to enable an individual to
communicate expressively.

Other methods of AAC may include the use of paper-based
systems, sign language or the use of eye pointing frames.
Despite this, it is recognised that individuals with signification
communication and/or access difficulties will rely heavily on

a VOCA (in this instance Grid Pad) to communicate given the significant enhancement to expressive communication that a VOCA often brings.

Although designed and manufactured to be extremely robust and reliable, it is possible to lose function due to power loss or other technical issues. For this reason, it should not;

- be used as a life supporting device.
- be relied upon for well-being.
- be relied upon as the user's only way of making an emergency call or alarm.
- be used to administer medicine.
- be relied upon as the only method of interaction with EC devices.

It is also not intended to provide information which is used to take decisions with diagnosis or therapeutic purposes.

When the device is working with other equipment, there may be interference. For this reason, Grid Pad should not be used:

- in an MRI environment.
- in an X-ray environment.
- in a military environment.
- in a harsh RF environment.

Safety warnings

Avoiding hearing damage

Using headphones and speakers at high volume can cause permanent hearing loss. Always keep the volume of your device at a safe level.

Durability

Your Grid Pad is tough and rugged but must be handled with care when moving around. It has been drop tested to one metre. Please note this does not include accessories.

Water and liquids

Your device is protected from splashing water and light rain.

Do not submerge the device in water.

When the port covers are removed, the USB ports are not protected. Do not get water or liquids on the back of the device, especially in the ports or vents.

Contact with user

Type of applied part	B
Applied part	Screen, enclosure

Conditions for Safe Contact - Time

Accessible part	Contact time limit
Metal accessible part	Less than 1 minute
Plastic accessible part	Less than 10 minutes
Screen	Less than 10 minutes

Conditions for Safe Contact - Temperature

Accessible part	Maximum Temperature while Device is in use (ambient temperature 35°C)
Metal accessible part	50.1
Plastic accessible part	46.1
Screen	44.9

Touching the surface of the device with broken skin may aggravate a wound.

Infants or high-risk groups should not touch the surface of the device if there is a chance of burning the skin.

Do not leave the device on the users lap or body if they cannot remove it.

Power supply and batteries

Your Grid Pad contains a rechargeable lithium ion battery. All rechargeable batteries degrade over time. The usage time for a Grid Pad after a full charge can become shorter over time.

For optimal performance your Grid Pad should not be charged at extreme temperatures of below 0°C or above 45°C. At these temperatures your battery will charge slowly or not at all.

Do not expose your Grid Pad to fire or temperatures above 90°C as these conditions can cause the battery to malfunction, ignite or explode.

Only charge your Grid Pad with the supplied power lead. Using unofficial power supplies may cause severe damage to your Grid Pad and cause fire. If your Grid Pad's power lead is lost or damaged, contact your supplier.

When your Grid Pad's battery is depleted, and the device is not connected to a power source, the device will automatically shut down to avoid damaging the battery and hardware. The operating system will attempt to do this as safely as possible, however it is recommended to connect the power lead before your Grid Pad shuts down.

The battery that powers your Grid Pad is subject to shipping regulations. Check with your postal service or courier before shipping to ensure safe delivery of your device.

Do not place your device in a place where the power adapter plug is difficult to disconnect from the socket.

To avoid personal injury or equipment damage, only our authorised personnel are permitted to replace a Grid Pad battery.

Do not service or perform maintenance on the device while the

device is in operation. Make sure to shut the device down and unplug all cables before starting service or maintenance work on the device.

Transporting your Grid Pad

When in transit, ensure your Grid Pad is sufficiently protected from knocks and bumps.

There are strict regulations for lithium ion batteries on airplanes. Rules vary between airlines, so it is recommended to contact your airline before you travel.

Temperature

Ensure that you shut down your device before storing or placing into a bag.

If used in hot temperatures or direct sunlight, your Grid Pad may reach temperatures that can trigger an automatic shutdown. This is a safety feature to prevent lasting damage to the device. If this occurs, please wait until your device has cooled before restarting.

Mounting

When mounting your Grid Pad, follow the instructions in both your Grid Pad and your mounting system manufacturer's guide. While we have taken every precaution to make this an easy and safe process, it is up to you to ensure the device is mounted safely.

Please use the dual Daessy and Rehadapt mounting solution provided. Ensure the mounting system you select is correct for your needs and perform a risk analysis if required.

Ports & Connections

Accessories connected to ports for a SIGNAL INPUT/OUTPUT must be compliant to the IEC standard 60601-1 or 60950-1/62368-1.

Choking hazard

If damaged, small parts may detach from your Grid Pad. These can present a choking hazard. Young children and people with cognitive disabilities should be supervised when using the device. They should also be supervised when unpacking the device as packaging can present a choking hazard.

Not sterile

Grid Pad is not sterile. Do not operate with open wounds, or whilst undergoing invasive medical treatments.

Strangulation hazard

Grid Pad is supplied with a power cable and can be used with cabled accessories. These can present a strangulation hazard.

Epilepsy warning

Some people with photosensitive epilepsy are susceptible to seizures when exposed to certain lights or light patterns. If you

feel odd or nauseous when in front of your Grid Pad, particularly if you are using it with an eye gaze camera, move away from the device and consult a medical professional.

Warranty

Your Grid Pad is covered under the standard 2 year warranty from the time of purchase.

Repairs and Maintenance

Your Grid Pad is not a user serviceable device. If your device requires a repair, please contact your local dealer.

Troubleshooting and Customer Support

In most cases, restarting your device will cure any problems. To restart your device, Select **Start** and then select **Power - Shut down**. If your device has crashed, hold down the power button or remote power button for 5+ seconds to hard shutdown. Press it again to turn it back on.

If this does not fix the problem, contact support at:
thinksmartbox.com/smart-support

Please have your serial number ready. This can be found under the stand on your device.

Incidents

If a serious incident occurs in relation to the device, please report to Smartbox (repairs@thinksmartbox.com) and the

competent authority of your member state.

Disposal

Please dispose of in line with local electronic waste regulations.

Battery warnings

Do not dismantle, open or shred the battery.

Do not expose the batteries to heat or fire, and avoid storage in direct sunlight.

Do not short-circuit the battery.

Do not store the battery haphazardly in a box or drawer where it may be short-circuited by other metal objects.

Do not subject the battery to mechanical shock.

In the event of a battery leaking, do not allow the liquid to come in to contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.

The charger is an important part of the equipment, do not use any charger other than that specifically (Model: MANGO40S-12BB-ES) provided for use with the equipment, and refer to the manufacturer's instructions or equipment manual for charging instruction.

Do not use any other battery with the equipment unless approved by Smartbox.

Battery usage by children should be supervised.

Keep the battery clean and dry.

Do not leave a battery on prolonged charge when not in use.

After extended periods of storage, it may be necessary to charge and discharge the battery several times to obtain maximum performance.

Retain the original product literature for future reference.

Only use the battery in the application for which it was intended.

Dispose of the battery according to local regulations.

Statement of compliance

Requirements in UK

5150MHz ~ 5350MHz is for indoor use only.

SAR is measured with the device at 0 mm to the body, while transmitting at the highest certified output power level in all frequency bands of the device. The maximum SAR value is 0.324W/kg (body) averaged over 10 gram of tissue. This equipment should be installed and operated with a minimum distance of 0 cm between the radiator and your body.

EU / CE Statement

Hereby, Smartbox Assistive Technology Ltd. declares that this radio equipment complies with Directive 2014/53/EU. The frequencies used by the wireless networking feature of this product are the 2.4 GHz range.

The full text of the EU declaration of conformity is available here: thinksmartbox.com/GP10s-DOC

Applicable Legislation

This equipment complies with the requirements of:
• EU harmonised legislation
• Medical Device Regulation (EU) 2017/745 (including EMC Directive 2014/30/EU and LVD Directive 2014/35/EU)
• RoHS Directive 2011/65/EU
• WEEE Directives 2012/19/EU

Harmonised Standards

EN 60601-1:2006/A1:2013

Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

EN 60601-1-2:2015

Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests

EN ISO 14971:2012

Medical devices - Application of risk management to medical devices

EN 61000-3-3:2013

Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current < = 16 A per phase and not subject to conditional connection

EN 50581:2012

Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous

substances

FCC Statement

FCC ID: **2APXM-GP10SA**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

For use in North America

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by

turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

RF warning for Portable device:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The mobile device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit of 1.60W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 1.388 W/kg.

For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions a minimum of 0mm from

the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

For use in Canada

IC: **24965-GP10SA**

Industry Canada Class B Emissions Compliance Statement
This Class B digital apparatus complies with Canadian ICES-003.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotopically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de

sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device is designed to meet the requirements for exposure to radio waves established by the Innovation, Science and Economic Development Canada's. These requirements set a SAR limit of 1.60W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 1.388 W/kg.

Le dispositif est conçu pour répondre aux exigences de l'exposition aux ondes radio créée par la science et l'innovation, développement économique Canada. Ces exigences limite de sar de 1.60W/kg en moyenne pour un gramme de tissu. La valeur de r - s en vertu de cette norme plus élevée au cours de la certification de produits déclarés pour une utilisation bien portés sur le corps est 1.388 W/kg.

$C\epsilon$ FC ⊠

EMC Declarations

Guidance and manufacturer´s declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

1	Guidance and manufacturer´s declaration – electromagnetic emission		
2	The Grid Pad 10s is intended for use in the electromagnetic environment specified below. The customer or the user of the Grid Pad 10s should assure that it is used in such an environment.		
3	Emissions test	Compliance	Electromagnetic environment – guidance
4	RF emissions CISPR 11	Group 1	The Grid Pad 10s uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
5	RF emissions CISPR 11	Class B	The Grid Pad 10s is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
6	Harmonic emissions IEC 61000-3-2	Class A	
7	Voltage fluctuations / flicker emissions IEC 61000-3-3	Applicable	

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer´s declaration - electromagnetic immunity			
The Model Grid Pad 10s are intended for use in the electromagnetic environment specified below. The customer or the user of the Model Grid Pad 10s should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	± 8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines 100 kHz repetition frequency ± 1 kV for input/output lines	± 2 kV for power supply lines 100 kHz repetition frequency	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 0.5 kV, ± 1 kV differential mode line-line	± 0.5 kV, ± 1 kV differential mode line-line	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % UT (100 % dip in UT) for 0.5 cycle at 0°, 45°, 90°, 135°,180°, 225°, 270°, and 315° 0 % UT (100 % dip in UT) for 1 cycle at 0° 70 % UT (30 % dip in UT) for 25/30 cycles at 0° 0 % UT (100 % dip in UT) for 250/300 cycle at 0°	0 % UT (100 % dip in UT) for 0.5 cycle at 0°, 45°, 90°, 135°,180°, 225°, 270°, and 315° 0 % UT (100 % dip in UT) for 1 cycle at 0° 70 % UT (30 % dip in UT) for 25/30 cycles at 0° 0 % UT (100 % dip in UT) for 250/300 cycle at 0°	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Grid Pad 10s requires continued operation during power mains interruptions, it is recommended that the Grid Pad 10s be powered from an interruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m, 50/60Hz	30 A/m, 50/60Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: UT is the a. c. mains voltage prior to application of the test level.			

Guidance and MANUFACTURER'S declaration – electromagnetic IMMUNITY

Guidance and manufacturer's declaration - electromagnetic immunity			
The Grid Pad 10s is intended for use in the electromagnetic environment specified below. The customer or the user of the Grid Pad 15 should assure that it is used in such an environment.			
Immunity test	EC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 6 Vrms 150 kHz to 80 MHz outside ISM bandsa 10 V/m 80 MHz to 2.7 GHz	3 Vrms 150 kHz to 80 MHz 6 Vrms 150 kHz to 80 MHz outside ISM bandsa 10 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the Grid Pad 10s, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $$d = \left[\frac{3.5}{V_1}\right]\sqrt{P}$$ $$d = \left[\frac{3.5}{E_1}\right]\sqrt{P}$$ 80MHz to 800MHz $$d = \left[\frac{7}{E_1}\right]\sqrt{P}$$ 800MHz to 2.7GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres(m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range b Interference may occur in the vicinity of equipment marked with the following symbol: $(((\cdot)))$
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

a The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz.

The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.

b The compliance levels in the ISM frequency bands between 150 kHz and 80 MHz and in the frequency range 80 MHz to 2,7 GHz are intended to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas. For this reason, an additional factor of 10/3 has been incorporated into the formulae used in calculating the recommended separation distance for transmitters in these frequency ranges.

c Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Grid Pad 10s is used exceeds the applicable RF compliance level above, the Grid Pad 10s should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Grid Pad 10s.

d Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 10 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the EQUIPMENT or SYSTEM

Recommended separation distances between portable and mobile RF communications equipment and the model Grid Pad 10s			
The Grid Pad 10s is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Grid Pad 10s can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Grid Pad 10s as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = [\dfrac{3.5}{V_1}]\sqrt{P}$	80 MHz to 800 MHz $d = [\dfrac{3.5}{E_1}]\sqrt{P}$	800 MHz to 2.7 GHz $d = [\dfrac{7}{E_1}]\sqrt{P}$
0.01	0.12	0.04	0.07
0.1	0.37	0.12	0.23
1	1.17	0.35	0.7
10	3.7	1.11	2.22
100	11.7	3.5	7.0
For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Recommended separation distances between RF wireless communications equipment					
The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between RF wireless communications equipment and the device as recommended below, according to the maximum output power of the communications equipment.					
Frequency MHz	Maximum Power W	Distance	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
385	1.8	0.3	27	27	RF wireless communications equipment should be used no closer to any part of the device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
450	2	0.3	28	28	
710	0.2	0.3	9	9	
745					
780					**Recommended separation distance**
810	2	0.3	28	28	$E = \dfrac{6}{d}\sqrt{P}$
870					
930					
1720	2	0.3	28	28	Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitter, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol:
1845					
1970					
2450	2	0.3	28	28	
5240	0.2	0.3	9	9	
5500					
5785					
Note 1: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.					

WARNINGS

- This device should not be used in the vicinity or on the top of other electronic equipment such as cell phone, transceiver or radio control products. If you have to do so, the device should be observed to verify normal operation.

- The use of accessories and power cord other than those specified, with the exception of cables sold by the manufacturer of the equipment or system as replacement parts for internal components, may result in increased emissions or decreased immunity of the equipment or system.

Manufacturer

Grid Pad 10s is manufactured by Smartbox Assistive Technology Ltd.

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