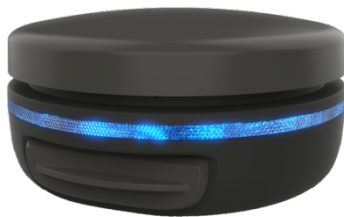# Solo

Making Technology Accessible

Solo Button

Solo Mouse

Solo Touch

Solo Wheel

Switches, Joysticks & Touch-Pads for Independent Control of Tablets, Smart-Phones and Computers

Important Notes:
1. Read this manual carefully before installing or operating your Solo input device.
2. Due to continuous product improvement Unique Perspectives reserves the right to update the Solo input device.
3. Any attempt to gain access to or in any way abuse the electronic components of Solo input device renders the manufacturer's warranty void and the Manufacturer free from liability.
4. This manual assumes that you are familiar with the operation of an iPAD and should be read in conjunction with its user manual.

Contents

Intended use & CE Marking

Intended Use

The Solo range of assistive input devices are designed to enable a person with an injury, impairment or disability to control and operate IT equipment such as computers, mobile phones, tablets, Smart TVs and communication aids.

Solo input devices are for indoor use only.

CE Marking

The Solo input devices are marketed as technical aids for people with disabilities and satisfy the requirements of Medical Devices Regulation MDR 2017/745.

1   Introduction & Overview

The Solo range of assistive input devices use Bluetooth Low Energy to connect wirelessly to iOS, Android, Windows and MAC platforms.

Battery powered and elegantly designed, these switches, joysticks and touch-pads can be customised to suit any ability and offer reliable independent control of Computers, Tablets, Smart-Phones, Communication Aids and Smart TVs.

Solo Button

The Solo Button has a positive tactile feel with unique auditory and visual feedback that sets a new standard for accessibility switches. This small unit can be fitted easily to standard mounts and has an input for a second wired switch.

SKU: SL-B-BT

Diameter: 55mm
Height: 25mm
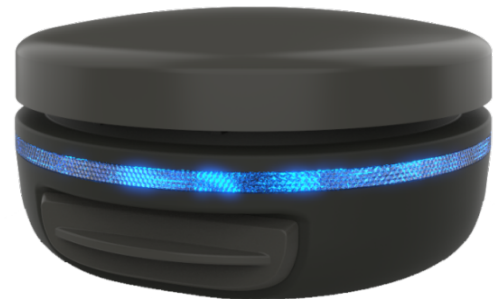
Solo Mouse

The Solo Mouse combines a light action proportional joystick with four programmable buttons in a miniature hand-held unit. Supplied with an optional neck strap and fabric clip.

SKU: SL-M

Size: 60x55x20mm

Solo Touch

The Solo Touch is ideal for individuals with extremely weak hand function. By resting a finger on the sensor the slightest increase or decrease in pressure activates the switch.

SKU: SL-T-5G

Size: 60x55x15mm

Solo Wheel

The Solo Wheel brings an additional level of control to four button navigation with a central wheel and select button. Ideal for scrolling through lists on Smart phones and tablets.

SKU: SL-W

Diameter: 65mm
Height: 45mm

2 Getting Started

> **Note:** The pairing procedure and screen shots throughout this section are for connecting to and controlling an iPAD device. If you are using an Android, Windows or MacOS machine follow the recommended steps for pairing and using Bluetooth input devices.

2.1 Turning on your Solo

Before getting started ensure that your Solo has been charged for at least 10minutes.

To turn on your Solo Button simply press the button. To turn on the Solo Touch, touch the sensor. In the case of the Solo Mouse press any of the keypad buttons or deflect the joystick to the left. To turn on the Solo Wheel press the centre button or the outer ring.

2.2 Pairing

Each Solo input device supports the generic Bluetooth low energy **Human Interface Device** (HID) profile and will appear in your device's settings as either a keyboard or mouse.

Step 1: Turn on your Solo

When you turn on your Solo the blue LED will be flashing/spinning rapidly. This indicates that the Solo is advertising and ready to pair.

Step 2: Open Settings

On your device go to **Settings->Bluetooth**. The Solo should appear in the list of available devices.
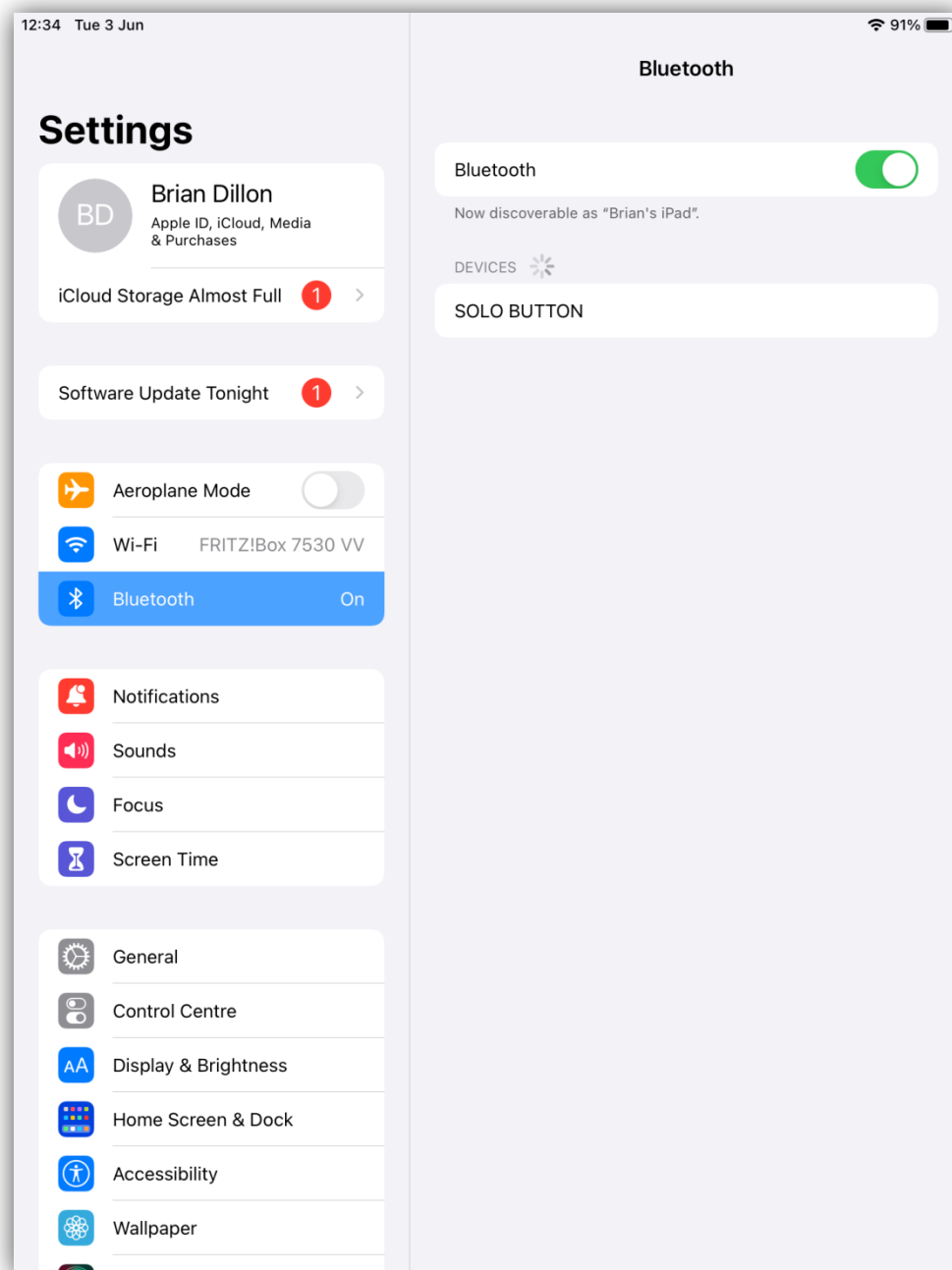
Step 3: Pair with your device

Click on **SOLO BUTTON** to initiate the pairing and first connection. No pass-code is required.

2.3   Using your Solo

When you turn on your Solo for the first time it will be operating in the standard mode.

For the Solo Button and Solo Touch this will be sending a "1" key to the connected device. This can be used to drive **Switch Control** on an iOS device, **ClickToPhone** on an Android or whatever accessibility software you are using.

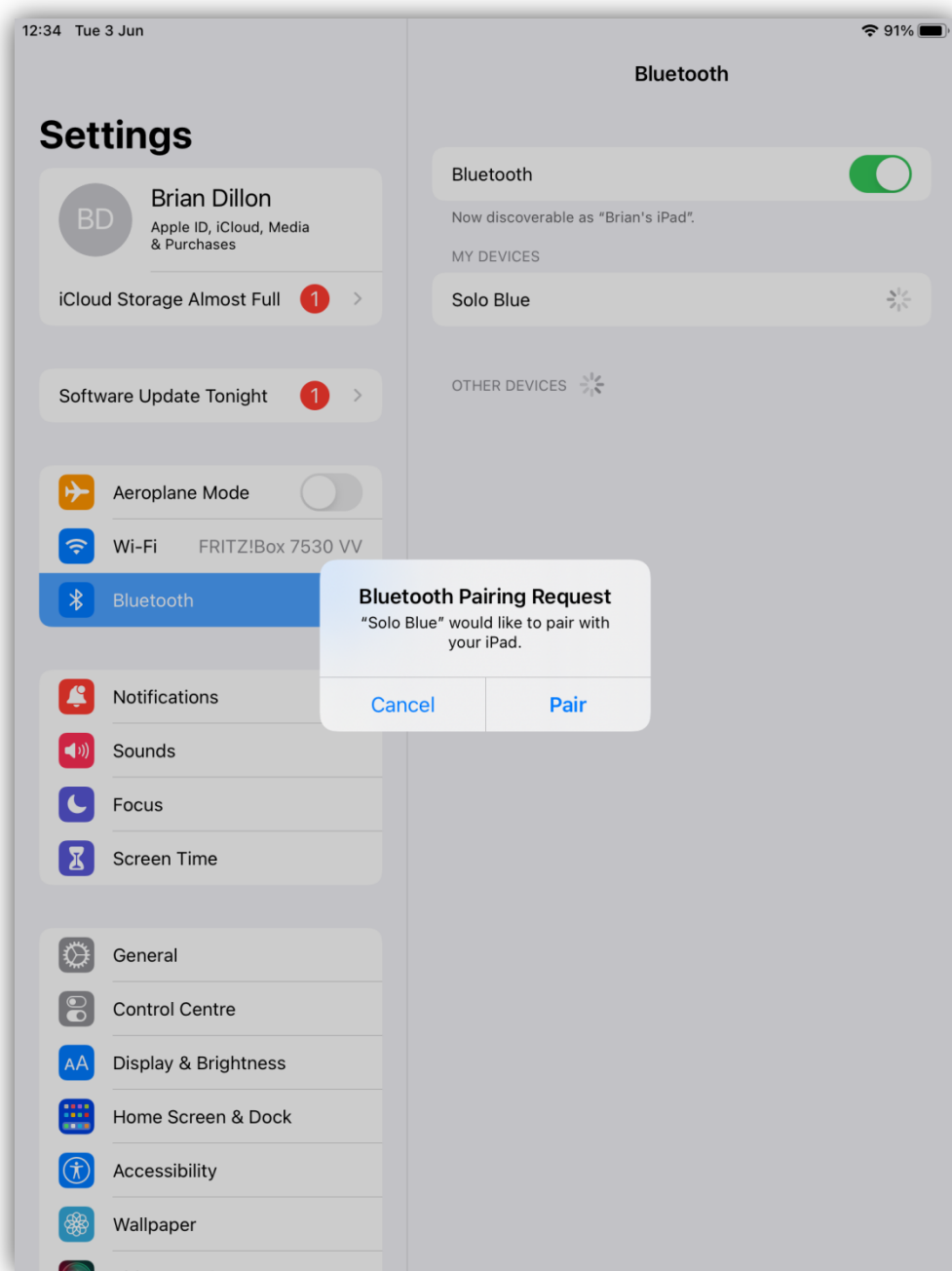For the Solo Mouse and Solo Wheel the standard operating mode is mouse control. Once paired, you can immediately use your device to move the mouse pointer on the connected device and navigate its UI.

If you are using an Android device consider using our **Dwell Click** app which provides a highly visible cross-hairs and soft keys to facilitate control over an Android device. https://play.google.com/store/search?q=dwell%20click&c=apps

For further information on the standard operating mode and other operation modes refer to the relevant chapter for your device.

2.4   Pairing with another device

By default, Solo is always available to pair and connect to another device. Follow the procedure outlined above to pair with a second device after insuring that the first device is either turned off, out of range or has its Bluetooth turned off.

If you have paired with more than one device, then, when you turn on your Solo the first device that discovers it, will connect to it.

A second feature is that when you have paired with more than one device, the **Switch Device** option becomes available when programming a button action. This means that you could program a Double Tap action to switch between connected devices thereby giving a user independent control over more than one device.

2.5   Secure Connections

In some circumstances it may not be desirable for your Solo to be available for pairing & connection to a new device. For example, you may wish to prevent other people from inadvertently pairing with it.

The **Secure Connections** option can be enabled to prevent additional pairings and only allow connections with previously paired devices. How to change program options is covered in the section 3.

2.6   Un-pairing

You can unpair your Solo either within your device settings or manually by performing a hard reset.

2.6.1   Un-pairing within device settings

Un-pairing within device settings is useful when you want to retain the programming options you have chosen and/or when you only wish to unpair one device.

Step 1:   Go to **Settings->Bluetooth**.
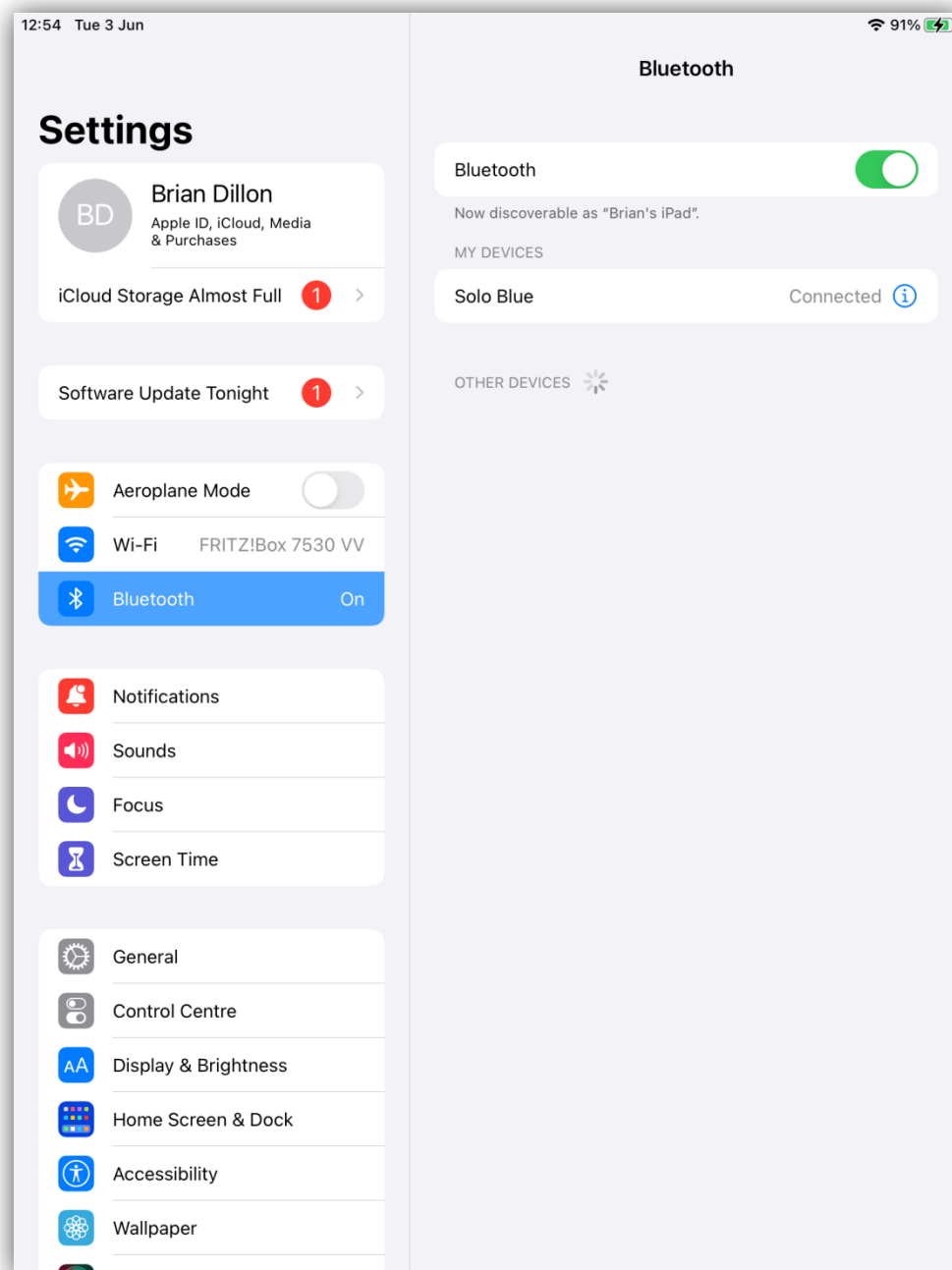
Step 2:   To the right of the Solo entry click on the information symbol

Step 3:   Click **Forget This Device** and then chose **Forget Device**.
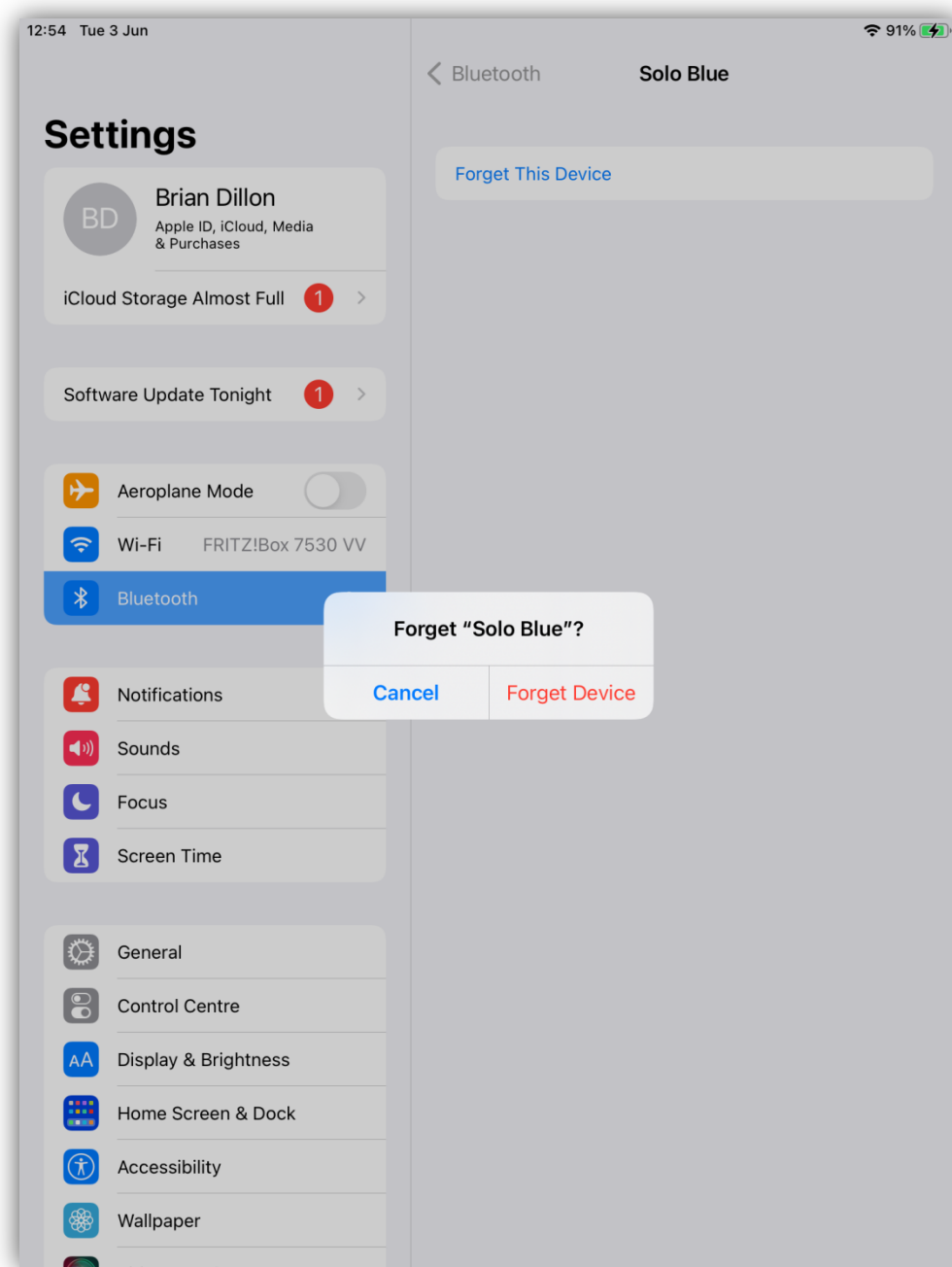
Note: It is important to carry out the above procedure whilst the Solo is connected to your device. In this way the Solo is instructed to disconnect and forget the Bluetooth ID of your device.

2.6.2 Un-pairing manually

To unpair manually and perform a hard reset of your Solo, turn it on and then press & hold the program button for 10 seconds until you hear a long beep. All program options are reset to default and all pairings are forgotten.

3   Programming

Whilst each Solo is designed to be used straight out of the box it is also possible to customize to suit a user's particular needs and abilities.

Using a standard text editor app, such as **Notes**, a comprehensive set of options is presented that allows you to change the function of the buttons and/or joystick.

Each Solo has a program button accessible through a small hole in the enclosure. See the relevant section further on to find its location on your specific model.

3.1   Displaying the help text

Step 1:   Ensure that the Solo is connected to your device and that **Switch Control** or its equivalent is turned **off**.

Step 2:   Launch a text entry app such as **Notes**.

If you are using a new Solo Button or Solo Touch then pressing the switch should display a "1" character. If you are using a Solo Mouse or Solo Wheel you should be able to move the mouse pointer.

Step 3:   Press and release the program button to display the help text.

12:36 Tue 3 Jun

‹ Notes

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SOLO BUTTON HELP TEXT

Number of paired devices ´1
Number of connected devices ´1
Battery Voltage ´82

IN NORMAL MODE

Tap the program button to edit the LED Color. Use the user button to change the Color and then tap the program button again to save.

Hold the program button for 2 seconds to perform a hard reset.

WHEN CONNECTED

To display this help text, hold the user button, then tap the program button.

Double tap the program button to enter program mode.

IN PROGRAM MODE

Tap the program button to exit without saving.

Tap the user button to advance through the settings.

Hold the user button to change a setting.

Double tap the program button to save and changes.

Tapping the primary button of a Solo Button sends a "1".

Tapping the program button sends this help text.

3.2   Changing the operation mode

Each Solo contains a number of standard operation modes which have been designed for different applications and user groups. See the relevant section for your Solo device for a list and explanation of these different operation modes.

To change the operation mode:

Step 1:   Ensure that the Solo is connected, that **Switch Control** is turned <u>off</u> and that a text entry app is running in the foreground.

Step 2:   Double tap the program button to enter program mode. The first program option displayed is the operation mode.
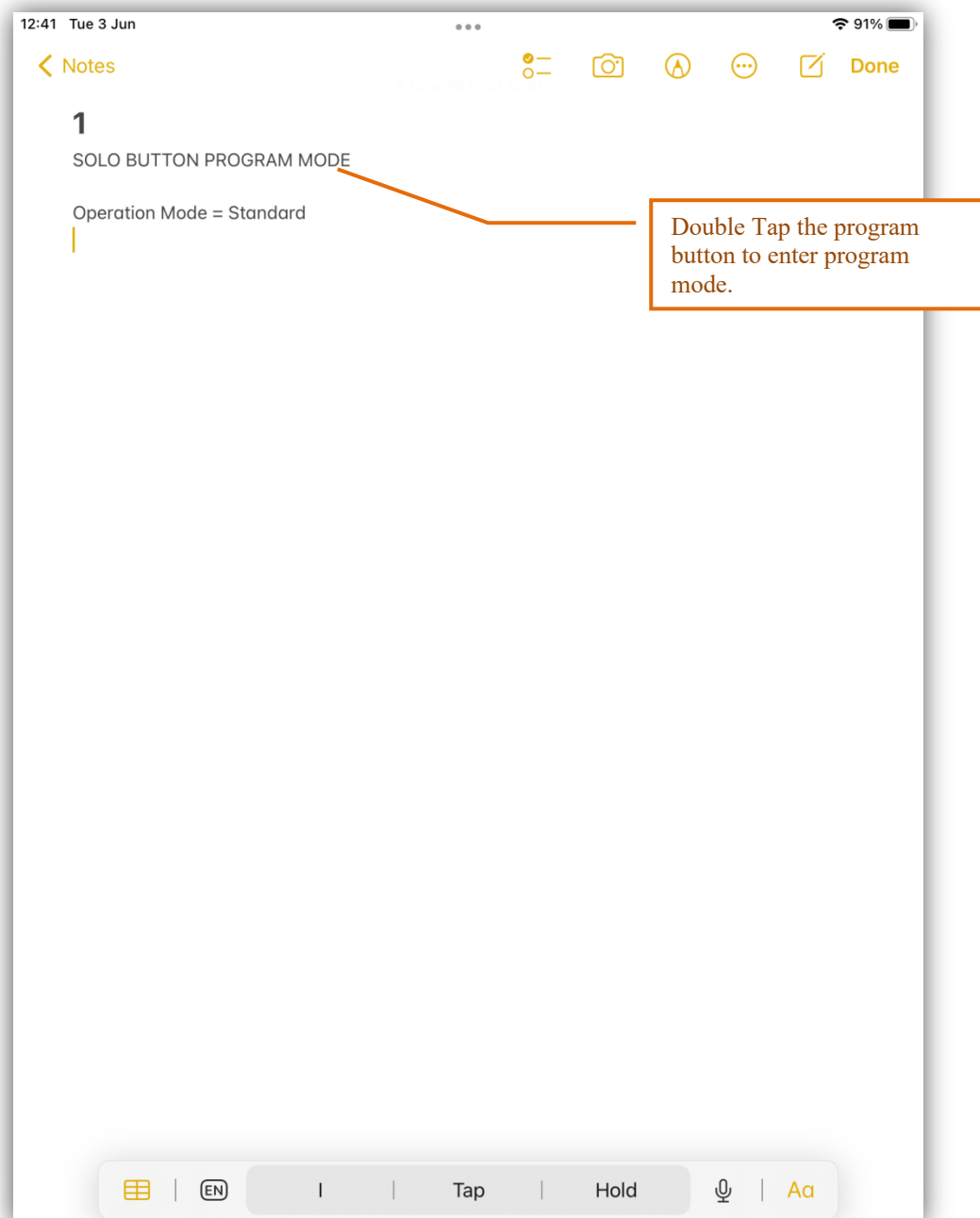
Step 3:   To change the operation mode <u>press and hold</u> the Primary Button **(left keypad button in the case of the Solo Mouse)** <u>until</u> the operation mode changes. Then release the Primary Button.

Step 4:   When the desired operation mode is displayed double tap the program button to exit program mode. In the example below the operation mode has been changed from **Standard** to **Two Functions**.
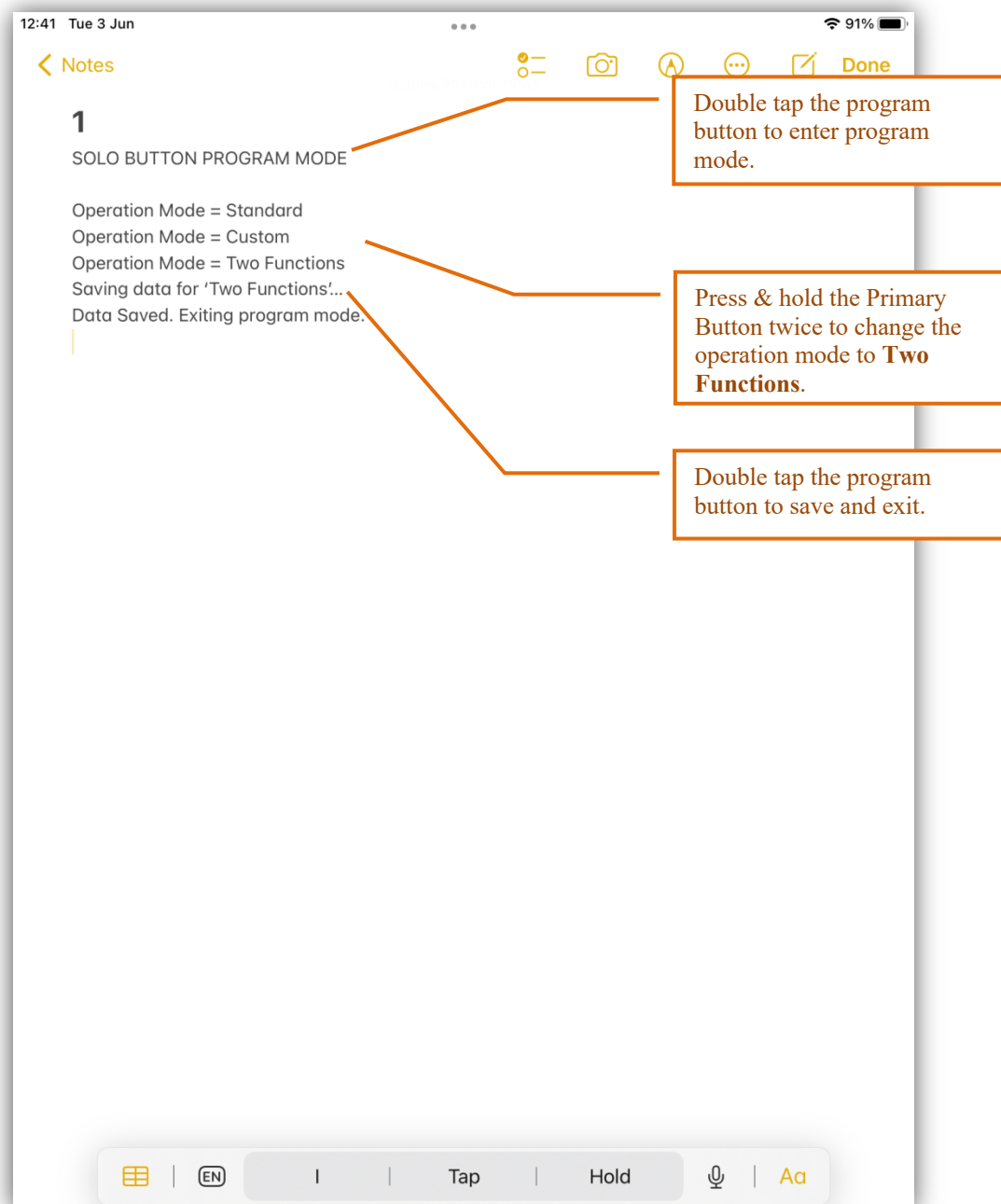
You can exit program mode at anytime without saving any changes by pressing the program button once.

3.3   Customising an operation mode

Once you have chosen an operation mode you can then tweak it to suit your particular application.

Step 1:   Ensure that the Solo is connected, that **Switch Control** is turned <u>off</u> and that a text entry app is running in the foreground.

Step 2:   Double tap the program button to enter program mode.

Step 3:   With the current operation mode displayed press and hold the Primary Button until this changes to **Custom**.
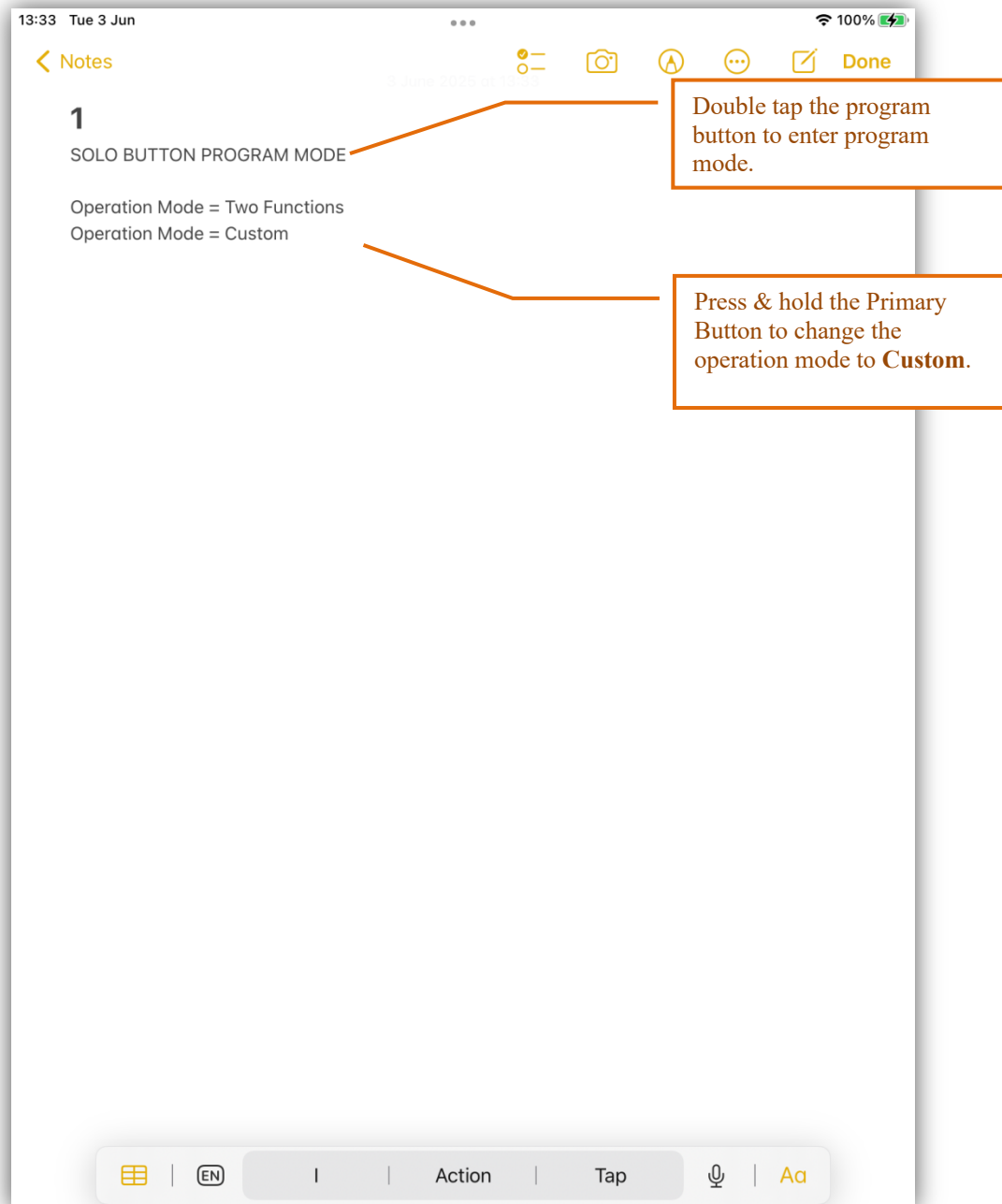
Step 4: Now, step through the program options by tapping the Primary Button. To change an option press and hold the Primary Button. The screen shot below shows stepping to and enabling the **Secure Connections** option.
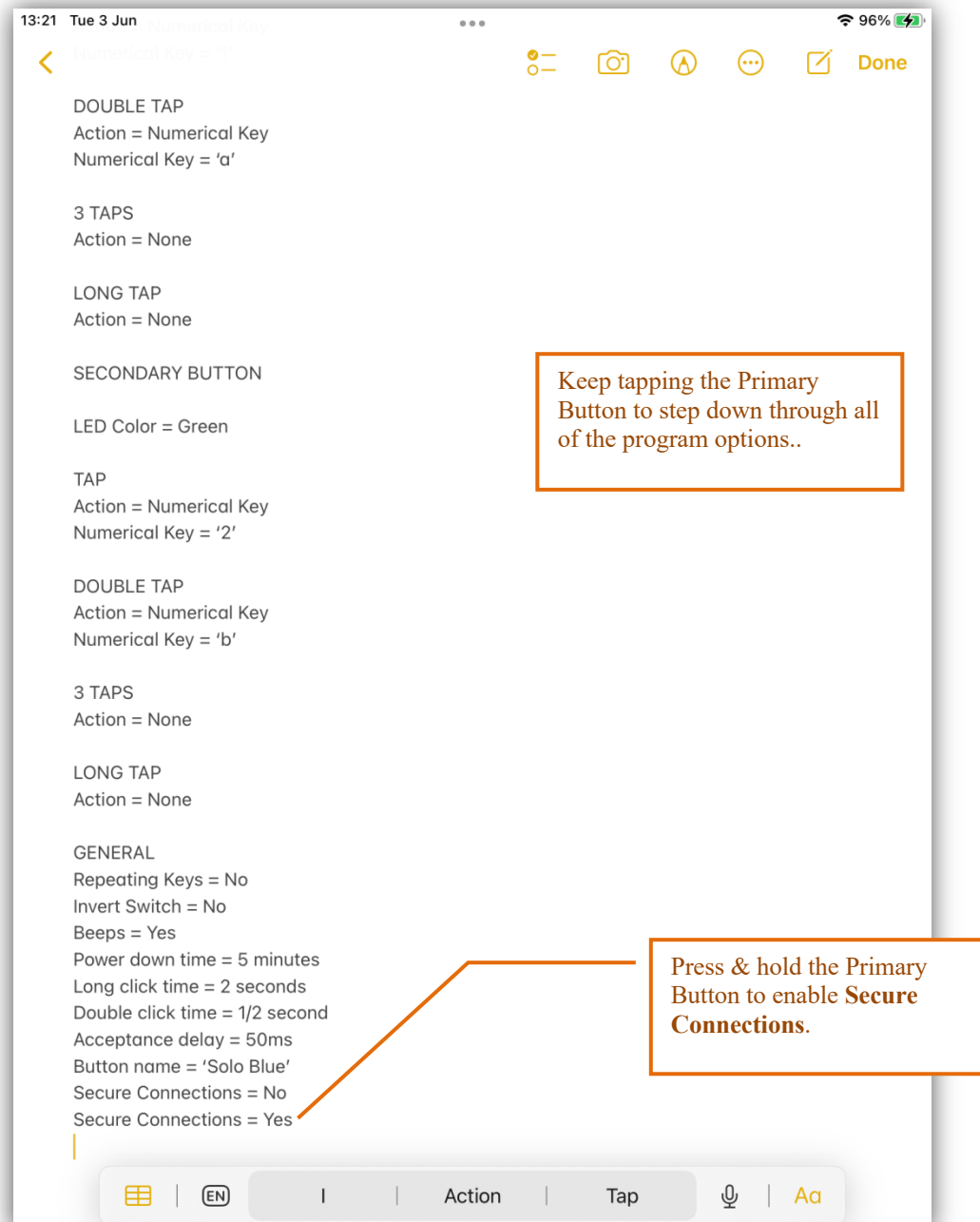
Step 5: Double tap the program button to save and exit or tap once to exit without saving.

3.4   Program Options

The program options can be used to customise a pre-defined operation mode and are divided into two main groups. The first group, **Actions & Functions** relates to the **Function** that each switch and/or joystick **Action** performs. The second group relates to general behavior such as **Powerdown time**, **Acceptance Delay** and so on.

3.4.1 Actions & Functions

An **Action** is something that the user performs, such as tapping the button or deflecting the joystick. A **Function** is what the Solo device does when this action occurs. For example, the default behavior for the Solo Button is that when the user taps the primary button a "1" key is sent to the connected device. The action is tapping the button, the function is sending the "1" key. On an iOS device this can be used to drive **Switch Control**.

Each button or joystick deflection can have multiple actions including **TAP**, **DOUBLE TAP**, **LONG TAP** and so on. This means, for example, that the Solo Button, which has a primary and secondary button (the built in switch and an external switch), could have 3 actions defined for each button giving a total of 6 functions. This is the case when the **Two Switch Mouse** operation mode is selected. In this mode the primary button operates the left click and up/down movements whilst the secondary buttons operates the right click and left/right movements.

Similarly, the left click, right click, home and back keypad buttons of the Solo Mouse can also be programmed to have multiple functions depending on whether the user performs a tap, double tap and/or long tap action. The table below lists the different actions that are possible.

Actions

Action	Description	Note
TAP	A single tap.	
DOUBLE TAP	Two taps in succession. The time window within which they must occur can be changed under General options.	

3 TAPS	Only available if DOUBLE TAP is defined.	Solo Button only.
4 TAPS	Only available if 3 TAPS is defined.	Solo Button only.
LONG TAP	A press and hold of the button for a defined period of time. The long click time can be changed under General options.	
DEFLECTION	The function of each deflection of a joystick can be individually programmed.	Solo Mouse only.
FLICK	A quick flick of a joystick can be programmed to perform a function.	Solo Mouse only.
ROTATE	Rotating the wheel clockwise and anti-clockwise.	Solo Wheel only.
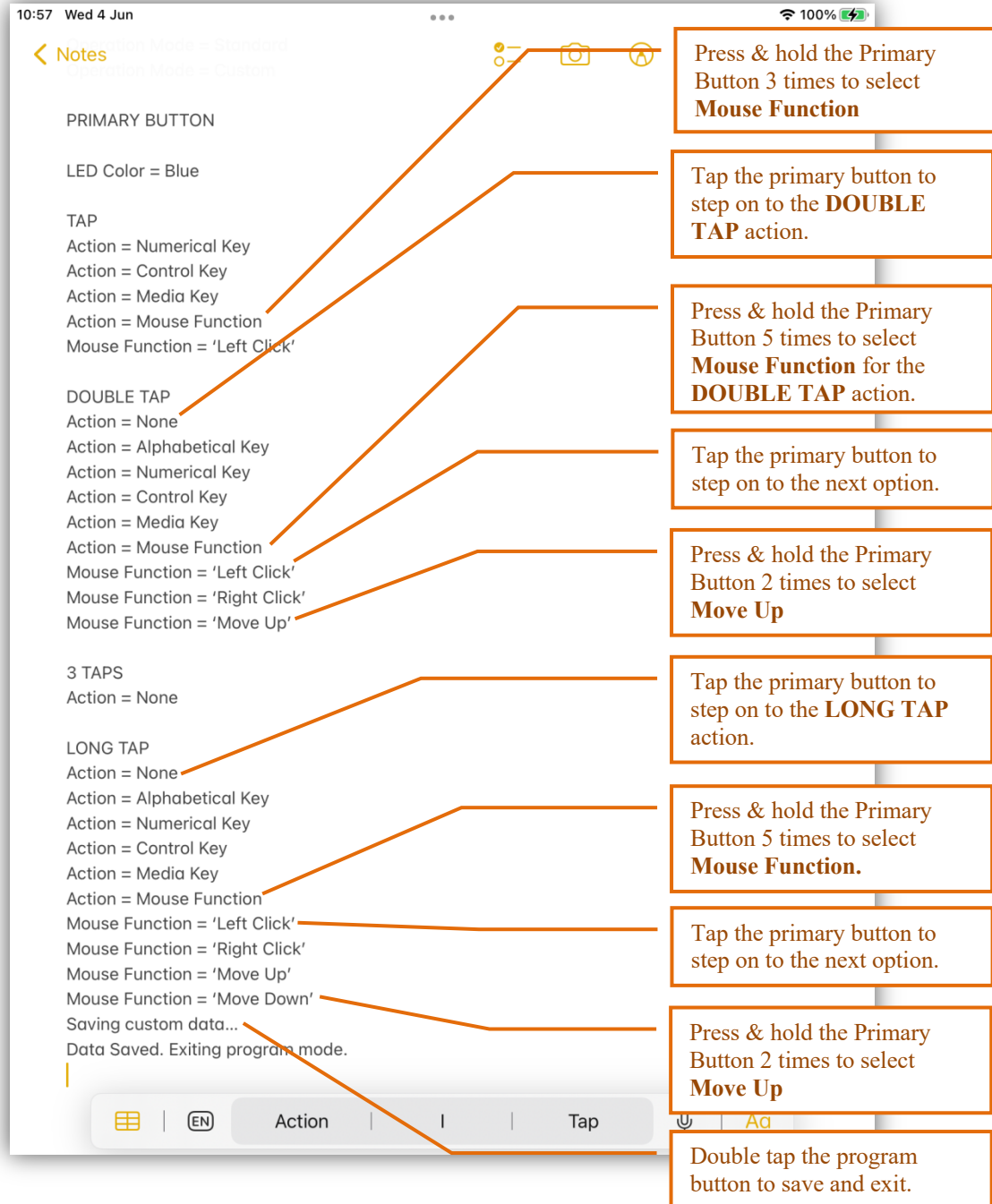
Functions

Each of the above actions can be programmed to carry out any of the following functions:

Function	Description
Alphabetical Key	Sends an alphabetical keyboard event to the connected device.
Numerical Key	Sends a numerical keyboard event to the connected device. The default for the Solo Button is '1' for example.
Control Key	Sends a control keyboard event to the connected device, such as Up/Down, Enter etc.
Media Key	Sends a media key event to the connected device, such as Volume Up, Next Track etc.
Mouse Function	Executes a mouse function such as Move Up, Left Click etc.
Change Mode	You can flip between the custom mode and one of the default operation modes. This could be used to toggle a joystick between mouse movements and arrow keys, for example.

None	No function, the action is ignored.

By way of example the following screen shot shows the steps taken to program the **Double Tap** and **Long Tap** actions of the Solo Button's primary button to perform Up/Down mouse movements.

PRIMARY BUTTON

LED Color = Blue

TAP
Action = Numerical Key
Action = Control Key
Action = Media Key
Action = Mouse Function
Mouse Function = 'Left Click'

DOUBLE TAP
Action = None
Action = Alphabetical Key
Action = Numerical Key
Action = Control Key
Action = Media Key
Action = Mouse Function
Mouse Function = 'Left Click'
Mouse Function = 'Right Click'
Mouse Function = 'Move Up'

3 TAPS
Action = None

LONG TAP
Action = None
Action = Alphabetical Key
Action = Numerical Key
Action = Control Key
Action = Media Key
Action = Mouse Function
Mouse Function = 'Left Click'
Mouse Function = 'Right Click'
Mouse Function = 'Move Up'
Mouse Function = 'Move Down'
Saving custom data...
Data Saved. Exiting program mode.

Callouts:
- Press & hold the Primary Button 3 times to select **Mouse Function**
- Tap the primary button to step on to the **DOUBLE TAP** action.
- Press & hold the Primary Button 5 times to select **Mouse Function** for the **DOUBLE TAP** action.
- Tap the primary button to step on to the next option.
- Press & hold the Primary Button 2 times to select **Move Up**
- Tap the primary button to step on to the **LONG TAP** action.
- Press & hold the Primary Button 5 times to select **Mouse Function.**
- Tap the primary button to step on to the next option.
- Press & hold the Primary Button 2 times to select **Move Up**
- Double tap the program button to save and exit.

3.4.2 General Behavior

The following options are found towards the end of the program option list after you have defined the functions for each action. They govern the general behavior of your device.

Function	Description	Default
Repeating Keys	Whether or not the function is repeated when you hold down a button.	No
Invert Switch	Inverts the switch so that the function is executed on the release rather than on the press. Useful in the Solo Touch so that a user can rest their finger on the sensor. Only available on the Solo Button and Solo Touch.	No
Led Behavior	The behavior of the Led ring on the Solo Button. Can be Always On, Always Off or Normal.	Normal
Led Brightness	The brightness of the LED ring on the Solo Button.	Low
Sensitivity	The sensitivity of the Solo Touch sensor can be set to 5, 10 or 15gms of pressure.	5g
Beeps	Whether the Solo beeps or not.	Yes
Power Down Time	The length of time after which the Solo will switch off if no action has occurred.	5 min
Long Click Time	The length of time a user must hold their button in order for a long tap action to occur.	2 seconds
Double Click Time	The window within which a user must tap their button twice in order for a double tap action to occur (rather than two separate taps occurring).	½ second.
Acceptance Delay	This option can be increased to avoid accidental button presses.	50ms
Button Name	The Bluetooth Low energy name can reflect the color of the LED in order to distinguish different buttons (not visible on all connected devices).	Solo
Secure Connections	No new pairings and only allow connections to devices that have been previously paired.	No

Un-Pair	Unpair the Solo from the current device after you Save. This option is useful if you want to program the Solo on one device and then use it on another. All other settings are unaffected.	No
Reset all options	Another method to reset all options to their default values. Similar to performing a hard reset but without un-pairing. As with the previous option only takes effect after you Save.	No
Save & Exit	An alternative method of saving instead of pressing the program button twice. When this is set to Yes, the next press of the primary button carries out the save and exit.	No

3.5 Hard reset

You can reset all program options to their default values and unpair the Solo by performing a hard reset.

Step 1: Turn off your device or switch off Bluetooth.

Step 2: Turn on Solo and then press and hold the program button for 10 seconds until it starts beeping.

4 Solo Button

The Solo Button is a wireless light action accessibility switch and combined Bluetooth interface. In addition to the built-in switch with an operating force of less than 50g there is a jack socket for connecting a second switch such as a Buddy Button or similar. This second switch can be programmed to have a different function, effectively turning the Solo Button into a two switch Bluetooth interface.

The Solo Button contains a long life Li-Polymer battery and is charged by a standard USB C cable. The LED light ring provides multi-function feedback on connection status, charging and battery level and can be programmed to be different colors to aid identification when using more than one button.

4.1 Overview

The connector panel of the Solo Button is hidden behind a dust cover. Gently remove the cover to access this area.
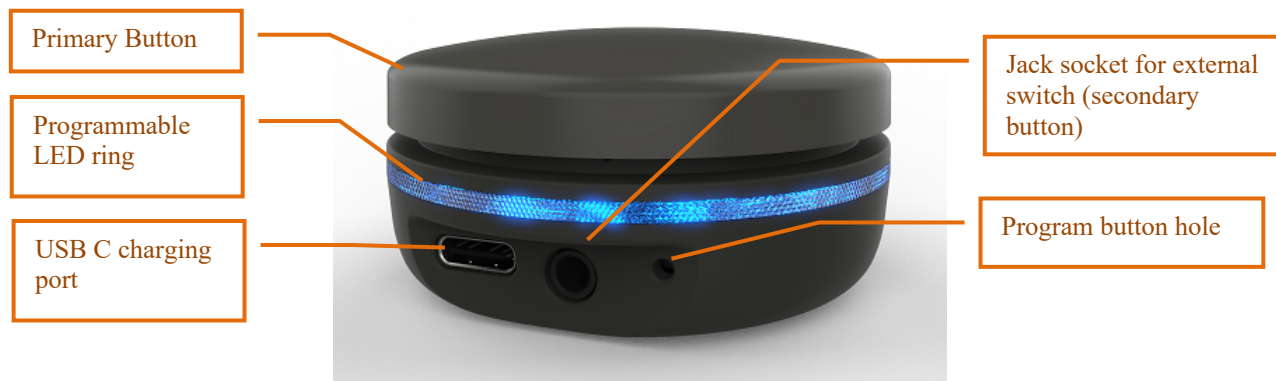
4.2 Operation Modes

The table below lists the predefined operating modes available within the Solo Button. Each of these operating modes can be customised further to tweak the functionality to suit your application. To select and/or customise the operation mode refer back to chapter 3.

Operation Mode	How it Works	Relevant Program Options

Standard	In this mode tapping the primary button sends a "1" key to the connected device.
	
	Tapping the secondary button (external switch) sends a "2" key to the connected device.
		PRIMARY BUTTON
		    TAP
		        ACTION = Numerical Key
		        Numerical Key = '1'
		SECONDARY BUTTON
		    TAP
		        ACTION = Numerical Key
		        Numerical Key = '2'

Two Functions	Tapping the primary button sends a "1" key.
	
	Double tapping the primary button sends an "a" key.
	
	Tapping the secondary button sends a "2" key
	
	Double tapping the secondary button sends a "b" key.
		PRIMARY BUTTON
		    TAP
		        ACTION = Numerical Key
		        Numerical Key = '1'
		    DOUBLE TAP
		        ACTION = Alphabetical Key
		        Alphabetical Key = 'a'
		
		SECONDARY BUTTON
		    TAP
		        ACTION = Numerical Key
		        Numerical Key = '2'
		    DOUBLE TAP
		        ACTION = Alphabetical Key
		        Alphabetical Key = 'b'

Mouse Clicks	Tapping the primary button sends a Left Mouse click.
	
	Tapping the secondary button sends a Right Mouse click.
		PRIMARY BUTTON
		    TAP
		        ACTION = Mouse Function
		        Mouse Function = 'Left Click'
		SECONDARY BUTTON
		    TAP
		        ACTION = Mouse Function
		        Mouse Function = 'Right Click'

Two Switch Mouse Control	Primary Button:
	• A tap sends a Left Mouse click.
	• Double Tap (and hold) moves the mouse pointer up the screen.
	• Long Tap (hold) moves the mouse pointer down the screen.
	
	Secondary Button:
		PRIMARY BUTTON
		    TAP
		        ACTION = Mouse Function
		        Mouse Function = 'Left Click'
		    DOUBLE TAP
		        ACTION = Mouse Function
		        Mouse Function = 'Move Up'
		    LONG TAP
		        ACTION = Mouse Function
		        Mouse Function = 'Move Down'

Solo

	• A tap sends a Right Mouse click.
	• Double Tap (and hold) moves the mouse pointer to the right.
	• Long Tap moves the mouse pointer to the left.
		SECONDARY BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Right Click'
		  DOUBLE TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Left'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Right'

One Switch Mouse Control	Primary Button:
	• A tap sends a Left Mouse click.
	• Double Tap (and hold) moves the mouse pointer up the screen.
	• Three taps (and hold) moves the mouse pointer left.
	• Four taps (and hold) moves the mouse pointer down the screen.
	• Long tap moves the mouse pointer left.
	
	Secondary Button:
	• A tap sends an 'Enter' key.
	• Double tap sends an 'Up' key
	• Three taps sends a 'Right' key.
	• Four taps sends a 'Down' key.
	• Long tap sends a 'Left' key.
		PRIMARY BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Left Click'
		  DOUBLE TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Up'
		  3 TAPS
		    ACTION = Mouse Function
		    Mouse Function = 'Move Right'
		  4 TAPS
		    ACTION = Mouse Function
		    Mouse Function = 'Move Down'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Left'
		
		SECONDARY BUTTON
		  TAP
		    ACTION = Control Key
		    Control Key = 'Enter'
		  DOUBLE TAP
		    ACTION = Media Key
		    Media Key = 'Up'
		  3 TAPS
		    ACTION = Media Key
		    Media Key = 'Right'
		  4 TAPS
		    ACTION = Media Key
		    Media Key = 'Down'
		  LONG TAP
		    ACTION = Media Key
		    Media Key = 'Left'

4.3   Changing the LED ring color

It is possible to change the color of the LED ring in order to be able to distinguish different buttons from one another.

Step 1:   Turn on Solo. It can be connected or not to change the LED color.

Step 2:   Press and hold the Solo button and then single tap the program button. Then release the Solo button.

Step 3:   The LED ring will rotate clockwise and anticlockwise. Tapping the Solo button toggles between the available colors.

Step 4:   With the desired color displayed single tap the program button to save and exit.

4.4   Specifications

Dimensions	Diameter: 55mm Height: 25mm
Weight	50gms
Operating Force	40gms
Battery Chemistry	Li-Polymer
Battery Capacity	420mAH 1 week usage under normal conditions
Bluetooth Spec	5.1 Bluetooth Low Energy
Compatibility	Windows, MacOS, Android, iOS.
Mounting	Standard Buddy Button arrangement Rehadapt #14.1508

5   Solo Mouse

The Solo Mouse is a light action miniature joystick that can be used to move the mouse pointer on a connected device such as a PC, Mac, iOS or Android device. The programmable keypad has four light action buttons..

The Solo Mouse contains a long life Li-Polymer battery and is charged by a standard USB C cable. The RGB LED provides multi-function feedback on connection status, charging and battery level. A program button accessed at the base of the unit allows the default operation modes to be customized to suit your application.

5.1   Overview

To turn on the Solo Mouse press any of the keypad buttons or deflect the joystick to the left.

In the default operation mode the joystick moves the mouse pointer and the four keypad buttons operate the Left click, Right click, Back and Home functions.

RGB LED

Back Button

Home Button

Left Mouse Click.
(Used as the primary button when programming)

Right Mouse Click

Light Action Joystick

On the underside of the unit is the program button, attachment point for lanyard or belt clip and USB C socket for charging.
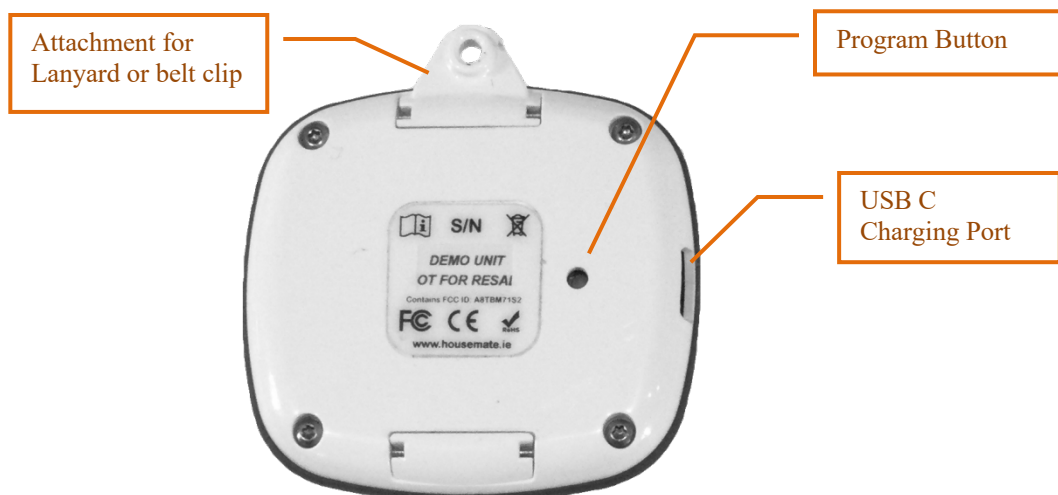
5.2   Operation Modes

The table below lists the predefined operating modes available within the Solo Mouse. Each of these operating modes can be customised further to tweak the functionality to suit your application. To select and/or customise the operation mode refer back to chapter 3.

Operation Mode	How it Works	Relevant Program Options
Mouse Control	This is the default operating mode. The joystick is used to move the mouse pointer. The keypad buttons are used to operate the mouse clicks, home and back functions.	Joystick = Analog HOME BUTTON 　TAP 　　ACTION = Media Key 　　Media Key = 'Home' BACK BUTTON 　TAP 　　ACTION = Media Key 　　Media Key = 'Back' LEFT CLICK BUTTON 　TAP 　　ACTION = Mouse Function 　　Mouse Function = 'Left Click' RIGHT CLICK BUTTON 　TAP 　　ACTION = Mouse Function 　　Mouse Function = 'Right Click'

Restricted Mouse Control	As above except that the mouse movements are restricted to non=proportional cardinal directions.	Joystick = Digital
		HOME BUTTON
		   TAP
		     ACTION = Media Key
		     Media Key = 'Home'
		BACK BUTTON
		   TAP
		     ACTION = Media Key
		     Media Key = 'Back'
		LEFT CLICK BUTTON
		   TAP
		     ACTION = Mouse Function
		     Mouse Function = 'Left Click'
		RIGHT CLICK BUTTON
		   TAP
		     ACTION = Mouse Function
		     Mouse Function = 'Right Click'

Keyboard Arrows	In this mode the joystick deflections send up/down/left/right keys to the connected device. This can be an easier and quicker method of navigating some devices than having to wait for a mouse pointer to move across the screen. Instead the user can make multiple deflections to move down through a list for example.
	
	Both the Left and Right buttons send the 'Enter' key.
	
	The Home button and Back buttons operate normally.
		Joystick = Digital
		HOME BUTTON
		   TAP
		     ACTION = Media Key
		     Media Key = 'Home'
		BACK BUTTON
		   TAP
		     ACTION = Media Key
		     Media Key = 'Back'
		LEFT CLICK BUTTON
		   TAP
		     ACTION = Control Key
		     Control Key = 'Enter'
		RIGHT CLICK BUTTON
		   TAP
		     ACTION = Control Key
		     Control Key = 'Enter'
		JOYSTICK UP
		   TAP
		     ACTION = Media Key
		     Media Key = 'Up'
		JOYSTICK DOWN
		   TAP
		     ACTION = Media Key
		     Media Key = 'Down'
		JOYSTICK LEFT
		   TAP
		     ACTION = Media Key
		     Media Key = 'Left'
		JOYSTICK RIGHT
		   TAP
		     ACTION = Media Key
		     Media Key = 'Right'

Arrows and Mouse	This is a combination of Restricted Mouse Control and Keyboard Arrows.
	
	Tapping the joystick sends the corresponding arrow key whilst holding the joystick in a certain direction will
		Joystick = Digital
		HOME BUTTON
		   TAP
		     ACTION = Media Key
		     Media Key = 'Home'
		BACK BUTTON
		   TAP
		     ACTION = Media Key
		     Media Key = 'Back'
		LEFT CLICK BUTTON

	start to move the mouse pointer in that direction.
	
	This gives excellent control over a device by being able to control both the mouse pointer and the keyboard cursor.
	
	In this mode the keypad left button is the Left Mouse click whilst the keypad right button is the Enter key.
	
	The length of time before the pointer begins to move is the Long Click time. Refer to chapter 3 on how to enter program mode and change options.
		TAP
		  ACTION = Control Key
		  Control Key = 'Enter'
		RIGHT CLICK BUTTON
		  TAP
		    ACTION = Control Key
		    Control Key = 'Enter'
		JOYSTICK UP
		  TAP
		    ACTION = Media Key
		    Media Key = 'Up'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Up'
		JOYSTICK DOWN
		  TAP
		    ACTION = Media Key
		    Media Key = 'Down'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Down'
		JOYSTICK LEFT
		  TAP
		    ACTION = Media Key
		    Media Key = 'Left'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Left'
		JOYSTICK RIGHT
		  TAP
		    ACTION = Media Key
		    Media Key = 'Right'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Right'

Joystick Flicks	This mode is ideal for a user who cannot press the keypad buttons and gives them full proportional control over mouse and navigation functions.
	
	A quick flick of the joystick to the left operates the Left Mouse click.
	
	A quick flick of the joystick to the right operates the Right Mouse click.
	
	A quick flick of the joystick forward operates the Home key.
	
	A quick flick of the joystick backwards operates the Back key.
		Joystick = Analog
		JOYSTICK UP
		  DEFLECTION
		    ACTION = Mouse Function
		    Mouse Function = 'Move Up'
		  FLICK
		    ACTION = Media Key
		    Media Key = 'Home'
		JOYSTICK DOWN
		  DEFLECTION
		    ACTION = Mouse Function
		    Mouse Function = 'Move Down'
		  FLICK
		    ACTION = Media Key
		    Media Key = 'Back'
		JOYSTICK LEFT
		  DEFLECTION
		    ACTION = Mouse Function
		    Mouse Function = 'Move Left'
		  FLICK
		    ACTION = Mouse Function
		    Mouse Function = 'Left Click'
		JOYSTICK RIGHT
		  DEFLECTION
		    ACTION = Mouse Function

	When the joystick is held in a particular direction for longer than the flick period the mouse pointer begins to move proportionally until it is returned to the neutral position.
	
	The flick period can be adjusted by setting the Double Click Time program option.
		Mouse Function = 'Move Right'
		FLICK
		  ACTION = Mouse Function
		  Mouse Function = 'Right Click'

5.3 Specifications

Dimensions	60x55x15mm
Weight	35gms
Keypad Operating Force	50gms
Joystick Displacement force	50gms
Battery Chemistry	Li-Polymer
Battery Capacity	420mAH 1 week usage under normal conditions
Bluetooth Spec	5.1 Bluetooth Low Energy
Compatibility	Windows, MacOS, Android, iOS.

6   Solo Touch

The Solo Touch is an extremely sensitive switch of less than 10gms that reacts to force and not touch. This means that a user can rest their finger gently on the sensor and simply increase pressure slightly to active the switch making it ideal for individuals with extremely weak finger movement. This is much simpler to use than a touch sensitive switch which requires you to lift your finger on and off a sensor. Furthermore the Invert Switch option allows a user to use the release of pressure to activate the switch rather than the increase of pressure. This can be a more effective method of control for certain individuals.

The Solo Touch contains a long life Li-Polymer battery and is charged by a standard USB C cable. The RGB LED provides multi-function feedback on connection status, charging and battery level. A program button accessed at the base of the unit allows the default operation modes to be customized to suit your application.

6.1   Overview

The force sensitive sensor can be set to 5, 10 or 15gms of pressure. The default operation mode is simply to send a '1' key to the connected device allowing you to drive iOS Switch Control and other accessibility tools and software.

Force Sensitive Sensor
(Used as the primary button
when programming)

RGB LED

On the underside of the unit is the program button, attachment point for lanyard or belt clip and USB C socket for charging.

Attachment for Lanyard or belt clip

Program Button

USB C Charging Port
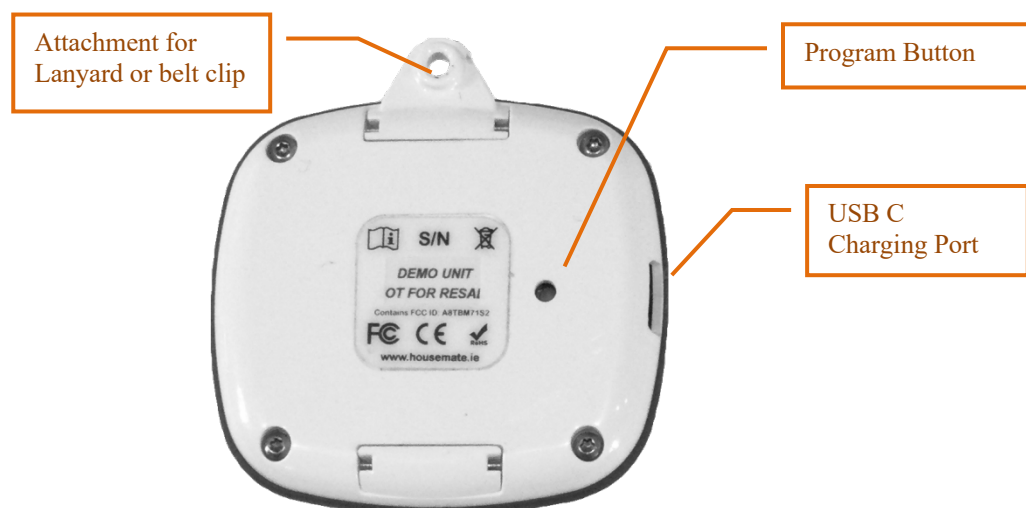
6.2   Operation Modes

The table below lists the predefined operating modes available within the Solo Touch. Each of these operating modes can be customised further to tweak the functionality to suit your application. To select and/or customise the operation mode refer back to chapter 3.

Operation Mode	How it Works	Relevant Program Options

Standard	In this mode tapping the sensor sends a "1" key to the connected device.	PRIMARY BUTTON
		    TAP
		        ACTION = Numerical Key
		        Numerical Key = '1'

Two Functions	Tapping the sensor sends a "1" key.
	
	Double tapping the sensor sends an "a" key.
		PRIMARY BUTTON
		    TAP
		        ACTION = Numerical Key
		        Numerical Key = '1'
		    DOUBLE TAP
		        ACTION = Alphabetical Key
		        Alphabetical Key = 'a'

Mouse Clicks	Tapping the sensor sends a Left Mouse click.	PRIMARY BUTTON
		    TAP
		        ACTION = Mouse Function
		        Mouse Function = 'Left Click'

6.3 Specifications

Dimensions	60x55x15mm
Weight	30gms
Operating Force	5-15gms
Battery Chemistry	Li-Polymer
Battery Capacity	420mAH 1 week usage under normal conditions
Bluetooth Spec	5.1 Bluetooth Low Energy
Compatibility	Windows, MacOS, Android, iOS.

7   Solo Wheel

The Solo Wheel is a unique navigation tool that allows a user to scroll through lists and select items as well as moving the mouse pointer. The four buttons of the outer ring of are used to move the mouse pointer and require 150gms of pressure to activate. The inner wheel sends up/down keys to the connected device and can be used to highlight the items in a list. The central button operates either the left mouse click or the enter key depending on the last operation.

The Solo Wheel contains a long life Li-Polymer battery and is charged by a standard Micro USB cable. The 4 internal RGB LEDs provide multi-function feedback on connection status, charging and battery level. A program button accessed at the base of the unit allows the default operation modes to be customized to suit your application.

7.1   Overview

The default functions of the Solo Wheel are illustrated below. These can be customized in Program Mode to suit your application.

Outer ring used to move the mouse pointer.

Inner wheel navigates up and down lists.

Central button operates either the Left Mouse click or Enter key.

Internal RGB LEDs.

Program Button

Micro USB Charging Port

7.2 Operation Modes

The table below lists the predefined operating modes available within the Solo Wheel. Each of these operating modes can be customized further to tweak the functionality to suit your application. To select and/or customise the operation mode refer back to chapter 3.

Operation Mode	How it Works	Relevant Program Options

Mouse Control	This is the default operating mode.
	
	The outer ring is used to move the mouse pointer. It is possible to achieve diagonal movements by holding the ring down in the quadrant positions.
	
	The inner ring sends up and down keyboard keys to the connected device making it possible to quickly scroll through lists.
	
	The centre button operates the Left Mouse click or the Enter key depending on the last action. For example after moving the mouse pointer pressing the centre button will generate a Left click. However, after scrolling a list pressing
		CENTRE BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Left Click'
		UP BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Up'
		DOWN BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Down
		LEFT BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Left
		RIGHT BUTTON
		  TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Right'
		ROTATE CLOCKWISE
		  TAP
		    ACTION = Media Key
		    Media Key = 'Up'

	the centre button will generate an Enter key.	ROTATE ANTICLOCKWISE
		  TAP
		    ACTION = Media Key
		    Media Key = 'Down'
		CENTRE BUTTON AFTER ROTATION
		  TAP
		    ACTION = Control Key
		    Control Key = 'Enter'

Keyboard Navigation	This is a very efficient method of controlling Android devices using a combination of arrow keys and the Back and Home functions.
	
	The Left and Right buttons of the outer wheel send a Left or Right arrow key to the connected device.
	
	The Top button of the outer wheel sends a Home key.
	
	The Bottom button of the outer wheel sends a Back key.
	
	The inner wheel sends Up and Down keys.
	
	The centre button sends and Enter key.
		CENTRE BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Enter'
		UP BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Home'
		DOWN BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Back'
		LEFT BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Left'
		RIGHT BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Right'
		ROTATE CLOCKWISE
		  TAP
		    ACTION = Media Key
		    Media Key = 'Up'
		ROTATE ANTICLOCKWISE
		  TAP
		    ACTION = Media Key
		    Media Key = 'Down'
		CENTRE BUTTON AFTER ROTATION
		  TAP
		    ACTION = Control Key
		    Control Key = 'Enter'

Keyboard and Mouse	This operation mode build on the previous one by adding mouse control to Keyboard navigation.
	
	In addition to the previous mode:
	
	When you press and hold the outer ring the mouse pointer will begin to move after a certain amount of time.
	
	When you press and hold the centre button a Left Mouse click is generated.
		CENTRE BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Enter'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Left Click'
		UP BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Home'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Up'
		DOWN BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Back'
		  LONG TAP
		    ACTION = Mouse Function

		Mouse Function = 'Move Down'
		LEFT BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Left'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Left'
		RIGHT BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Right'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Right'
		ROTATE CLOCKWISE
		  TAP
		    ACTION = Media Key
		    Media Key = 'Up'
		ROTATE ANTICLOCKWISE
		  TAP
		    ACTION = Media Key
		    Media Key = 'Down'
		CENTRE BUTTON AFTER ROTATION
		  TAP
		    ACTION = Control Key
		    Control Key = 'Enter'

Three Functions	For an advanced user this operation mode adds multimedia control using double taps and is ideal for full control over an Android device.
	
	Furthermore it demonstrates the full potential of Solo devices by defining three functions per action.
	
	In addition to the previous mode:
	
	Double tap the Right button to press Play/Pause
	
	Double tap the Up button to increase volume.
	
	Double tap the Down button to reduce volume.
	
	Double tap the Left button to sleep or wake-up the device.
		CENTRE BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Enter'
		  DOUBLE TAP
		    ACTION = Media Key
		    Media Key = 'Search'
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Left Click'
		UP BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Home'
		  DOUBLE TAP
		    ACTION = Media Key
		    Media Key = 'Volume Up
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Up'
		DOWN BUTTON
		  TAP
		    ACTION = Media Key
		    Media Key = 'Back'
		  DOUBLE TAP
		    ACTION = Media Key
		    Media Key = 'Volume Down
		  LONG TAP
		    ACTION = Mouse Function
		    Mouse Function = 'Move Down'
		LEFT BUTTON
		  TAP
		    ACTION = Media Key

Double tap the centre button to search. Depends on whether app supports search or not.	Media Key = 'Left'
	 DOUBLE TAP
	   ACTION = Media Key
	   Media Key = 'Power Button
	 LONG TAP
	   ACTION = Mouse Function
	   Mouse Function = 'Move Left'
	RIGHT BUTTON
	 TAP
	   ACTION = Media Key
	   Media Key = 'Right'
	 DOUBLE TAP
	   ACTION = Media Key
	   Media Key = 'Play/Pause
	 LONG TAP
	   ACTION = Mouse Function
	   Mouse Function = 'Move Right'
	ROTATE CLOCKWISE
	 TAP
	   ACTION = Media Key
	   Media Key = 'Up'
	ROTATE ANTICLOCKWISE
	 TAP
	   ACTION = Media Key
	   Media Key = 'Down'
	CENTRE BUTTON AFTER ROTATION
	 TAP
	   ACTION = Control Key
	   Control Key = 'Enter'

7.3 Specifications

Dimensions	Diameter: 65mm Height: 42mm
Weight	45gms
Operating Force	150gms
Battery Chemistry	Li-Polymer
Battery Capacity	300mAH 1 week usage under normal conditions
Bluetooth Spec	5.1 Bluetooth Low Energy
Compatibility	Windows, MacOS, Android, iOS.

8 Maintenance

The Solo input devices should be regularly checked for integrity. Loose, damaged or corroded connectors or terminals, or damaged cabling should be reported to your Service Centre and be replaced immediately.

The Li-Ion battery should be regularly checked for corrosion or leakage. Occasionally remove the cover and check for leakages, corrosion and evidence of over-heating.

If you are not using a Solo input device for an extended period disconnect the battery.

Any switches or cables connected to your hardware should be regularly tested to ensure that they function correctly.

The Solo input devices should be kept free of dust, dirt and liquids. If necessary wipe with a cloth dampened with warm water or alcohol. **Do not** use solvents or abrasive cleaners.

Where any doubt exists, consult your nearest Service Centre or Agent.

There are no user-serviceable parts within the Solo input devices.

In accordance with the requirements of CE marking of this device and the Company's policy, it is requested that re-occurring faults or defects be reported back to Unique Perspectives Ltd.

Warning !! If your Solo input device is damaged in any way, or if internal damage may have occurred (for example by being dropped), have it checked by qualified personnel before operating.

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9   Warranty & Sales and Service Information

All equipment supplied by Unique Perspectives Ltd. is warranted by the company to be free from faulty materials or workmanship. If any defect is found within the warranty period of 12 months, the company will repair the equipment, or at its discretion, replace the equipment without charge for materials and labor.

The warranty is subject to the conditions that the equipment:

- Has been used solely in accordance with this manual and for its intended purpose.

- Has not been subjected to misuse or accident, or been modified or repaired by any person other than someone authorized by Unique Perspectives Ltd.

- Has been used solely for the use of interfacing to a computer, tablet, mobile phone, smart TV or compatible communication aid.

For Sales and Service advice, or in case of any difficulty, please contact:

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Ballyclovan
Callan
Kilkenny
R95D9E8
Ireland

WEB: www.housemate.ie
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NOTE: The Solo input device should be clearly labeled with the manufacturer's service agent's telephone number.