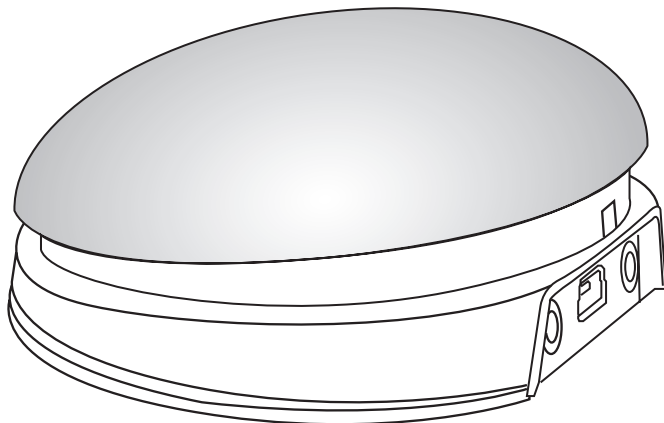


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TECHNOLOGIES LTD.

## INSTRUCTIONS

### **iSwitch iPad/iPhone/iPod Access Device**



#### **Pack Contents**

Carefully check the contents of the box, which are:

**iSwitch unit**  
**USB charging cable**  
**These instructions**

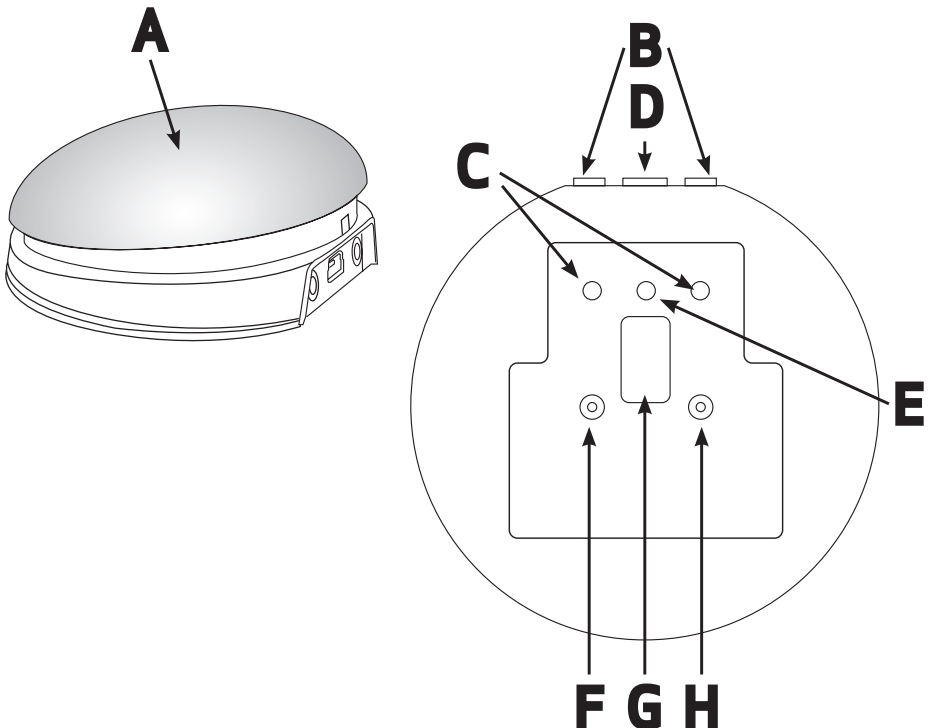
#### **Product Description**

**iSwitch** is a highly versatile switch access device specifically designed to give you access to iOS Switch Control, switch adapted apps, music and photography.

Specifically designed around users' needs, **iSwitch** is simple to set up and

use, but loaded with features to cater for all requirements. Although simple to operate, to ensure you get the best experience from using your new **iSwitch**, please take time to read this instruction booklet.

- Integral 75mm switch
- Pairs directly with your iPad/iPhone/iPod without PIN entry.
- Connect up to two additional wired switches of any type.
- Function of each switch/socket may be individually selected.
- Includes enhanced access to iOS Switch Control
- Integral button allows on-screen keyboard to be displayed or hidden at any time.
- 20m (64') operating range.
- Integral lithium-ion rechargeable battery.
- Charged from any USB socket.
- Manual and automatic sleep modes to conserve battery life.
- Choice of four switch colours (red, yellow, green, blue)



# Compatibility

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Your **iSwitch** is compatible with the following Apple products:

iPad - all models  
iPod Touch 3rd Generation onwards  
iPhone 3GS onwards

Android tablets vary enormously in specification so compatibility with these products is dependent upon the specific tablet. Please contact Pretorian Technologies or your local distributor for guidance.

*Throughout these instructions, all references to iPad should be taken as meaning any of the above Apple products.*

## Charging your iSwitch

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Ensure that the integral battery is fully charged by plugging the charging cable into **iSwitch** and then into a computer USB port. The charging LED (E) will illuminate green to show that charging is taking place. Once charged, the charging light is extinguished.

## Connecting to your iPad/iPhone/iPod

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Wake up **iSwitch** by pressing either the Channel or Mode buttons (F or H)\*.

Go to the Bluetooth menu on your iPad (Settings ➤ Bluetooth). First of all ensure Bluetooth is turned on using the slider at the top of the screen.

After a few seconds the **iSwitch** should appear as a 'discoverable' device. It will appear as something similar to:

**Pretorian-V59.0-ABC1**

Tap on the name and the pairing process will begin. Typically it takes around 20 seconds to connect, after which the iPad will state that the device is 'Connected'. Your **iSwitch** is now ready for use.

*\* If the unit awakes but you do not see the rotating pattern on the display, refer to the 're-connecting your iSwitch' section of this manual.*

*\*The iSwitch is shipped in manual sleep mode- please refer to page 7 for more details.*

## Notes about Bluetooth Connections

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Once connected with a particular iPad, it will no longer be visible ('discoverable') by other iPads. If you turn your iPad off, turn off Bluetooth or if you go out of range, the connection between the two devices is automatically re-established when you next power on, turn Bluetooth on or go back into range.

If you wish to connect with a different iPad at any time, please refer to the 'Re-Connecting your iSwitch' section of this manual.

# Mode Settings

The default modes for the integral switch (A) and sockets (B) are given in Table 1:

<b>SWITCH (A)</b>	<b>Space</b>
<b>SOCKET 1 (B)</b>	<b>Enter</b>
<b>SOCKET 2 (B)</b>	<b>Home</b>

Table 1: Default Switch/Socket Modes

To change the integral switch (A) mode setting, press the channel button (F) once. The current mode setting is then shown on the display (G). To change, press the mode button (H) until the desired setting appears on the display. Table 2 shows the available settings. After a few seconds the display is extinguished to save power and the settings saved.

Note that neither of the LEDs (C) are illuminated when setting the internal switch mode.

To change the setting of either socket (B), first select the socket which you would like to change by repeatedly pressing the Channel button (F) until the LED (C) adjacent to that socket is illuminated.

The current setting is then shown on the display (G). To change, press the Mode button (H) until the desired setting appears on the display. Table 2 shows the available settings. After a few seconds the display is extinguished to save power and the settings saved.

Any combination of settings can be programmed, including duplicates, should you wish to use iSwitch for turn-taking and cooperation.

Mode Setting	Class	Function
0	Keyboard	Numeral 0
1	Keyboard	Numeral 1
2	Keyboard	Numeral 2
3	Keyboard	Numeral 3
4	Keyboard	Numeral 4
5	Keyboard	Space
6	Keyboard	Enter
7	Keyboard	~1
8	Keyboard	~3
9	Keyboard	Up Arrow
A	Keyboard	Down Arrow
B	Keyboard	Left Arrow
C	Keyboard	Right Arrow
D	Op. System	Keyboard
E	Media	Play/Pause
F	Media	Skip Forward
G	Media	Skip Back
H	Media	Volume Up
J	Media	Volume Down
L	Media	Mute
P	Media	Timed Play 10s
R	Media	Timed Play 30s
T	Switch Control	Home
U	Switch Control	Enter / Home

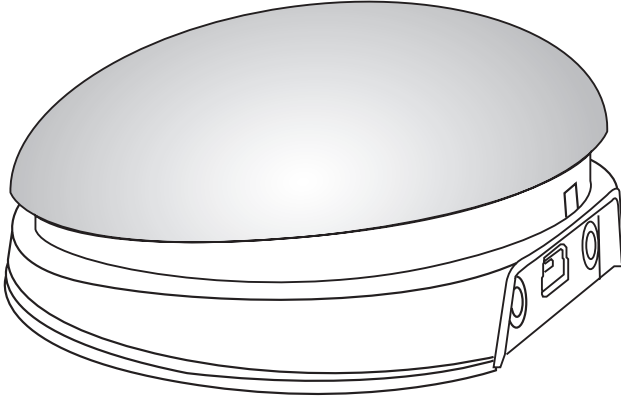
Table 2: Switch Functions

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# Accessing Music/Media

Many of the settings in Table 2 give access to the iPad media player rather than to switch adapted Apps. Any switch or socket may be programmed

to use these settings and they may be mixed with switch adapted App settings in any sequence at all. Selecting these settings is exactly as described above.



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## On-Screen Keyboard

Because your iSwitch appears to the iPad as a keyboard, the iPad automatically turns off the on-screen keyboard. This can cause difficulties in some Apps which require a typed input such as entering a user's name.

To overcome this, iSwitch allows you to deploy the on-screen keyboard manually at any time. Simply press the mode button (H) while the display (G) is off.. The on-screen keyboard will be deployed automatically. To turn it off again, press and hold the mode button once again.

Mode setting 'D' allows any switch to be configured to deploy the on-screen keyboard, and is particularly useful if you can't easily access the Mode button (for example if your iSwitch is attached to a surface).

Note that iPad remembers your on-screen keyboard preference so there's no need to press to deploy every time.

*Note that the iPad only allows the on-screen keyboard to be deployed when a text input box is selected.*

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## Timed Play

Timed Play settings allow you to create a 'reward' for pressing a button, completing a task, or any number of other outcomes. You have a choice of 10 or 30 seconds play time.

*Because this setting uses the 'Play/Pause' command, it is important that the iPad is paused (not playing) before you press the switch to give timed play, otherwise the iPad will pause for a timed period instead of playing.*

*If a switch programmed to Play/Pause is pressed during a timed play, the timed play will be cut*

*short and the unit will be Paused.*

*Skip Forward and Skip Back commands have no effect on the duration of a timed play.*

*If you wish to end a timed play early, you can use a switch already programmed to Play/Pause.*

# Switch Control (iOS7 onward)

iOS7 and later operating systems include the Switch Control feature, allowing the user to scan apps, menu items and the pop-up keyboard without using the touch screen. iSwitch may be used as the Bluetooth switch device to allow you to scan and select items.

Before enabling Switch Control, first decide what type of switch interface will be best for the user. For example, this could be a single select switch in combination with the Auto Scanning feature within Switch Control, or it may comprise several switches to allow manual scanning and select.

Almost any switch setting in Table 2 categorised as 'Keyboard' may be used to effect any scanning/ selecting function. However, it is important not to use ~1 or ~3, since iPad accepts the first character only and both of these begin with ~. Media functions such as Play/Pause, Skip Fwd etc cannot be used.

Once you have decided on a particular number of switches, plug any external switches into iSwitch and program their respective settings as described above. For example, if three switches are required for Scan to Next Item, Scan to Previous Item and Select Item it may make sense to use →, ← and Enter (B, C and 6 respectively on the display).

With iSwitch already paired to your iPad, go to Settings → General → Accessibility → Switch

Control and tap on 'Switches'. Then tap on 'Add New Switch' and 'External'. You will be asked to activate your external switch. At this point, press the relevant switch (either integral or external).

Once your iPad has recognised the switch press, it will ask you to give the switch a name. This may be anything but should help to identify which switch it refers to. Consider names such as 'red switch', 'grasp switch' etc'.

Next, your iPad will ask you to assign the switch to a particular task. Using the above example, if you were setting up the → switch (setting B), you would tap on Scan to Next Item.

Repeat this exercise for each of the switches you would like to use and then turn on Switch Control using the slide at the top of the screen. Also set Auto Scanning to the desired setting (auto scanning will be disabled if you have pressed any switches that are set to Scan to Next Item or Scan to Previous Item). Generally speaking, fewer switches will be required when Auto Scanning compared to manual scanning so the choice of which to use is often governed by the number of switches the user is able to operate.

Tutorial videos are available on the Pretorian Technologies' website - please visit [www.pretorianuk.com/iswitch](http://www.pretorianuk.com/iswitch) and click on Videos.

## Using Home functions with Switch Control

Settings T and U in Table 2 have been added to make iSwitch easier to use with Switch Control. Setting T is 'Home' and is exactly equivalent to pressing the Home button on iPad. Note that this setting can be used whether in Switch Control or not and does not need to be programmed within Switch Control.

Setting 'U' is Enter/Home which gives Enter if pressed briefly or Home after an extended press. This is extremely useful when combined with Auto Scanning since it allows the integral switch to carry out virtually every task on iPad without needing any external switches.

To get the best experience from setting U, program Enter (brief press) to Select Item. Be sure to use a brief press when iPad asks you to activate your external switch and then set it to Select Item.

There is no need to set a function for Home (long press) since this is an inherent function for iPad. Once set up in this way, a brief press of the switch allows you to control Auto Scanning and select an item whereas a long press allows you to quit back to the home screen.

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# Re-Connecting your iSwitch

If, when waking up your iSwitch, the rotating pattern does not appear on the display, this indicates that the unit is already connected to another iPad in the vicinity. In this case you will need to 'forget' this connection before you can re-connect with another unit.

Similarly, if you have been using your iSwitch with a particular iPad that is still in the vicinity and you wish to swap it to another, you will also need to forget the existing connection.

Go to the Bluetooth menu on your iPad (Settings → Bluetooth) and tap the blue tab adjacent to the unit name, for example:

**Pretorian-V59.0-ABC1**

Then tap on 'Forget this device'. At this point the unit is no longer connected with the original iPad and will appear as a 'discoverable' device on all iPads in the vicinity. You can then re-connect with a different iPad by again tapping on the unit name in the Bluetooth menu.

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## Automatic Sleep Mode

To conserve battery life, iSwitch automatically enters a low-power sleep mode if it remains unused for an hour. Pressing any external switch (integral or external) or any button on the unit instantly wakes it again. While asleep, the connection with the iPad

is lost but is automatically re-established within a few seconds of wake-up.

If the unit remains unpaired for more than 5 minutes, it will also enter low-power sleep mode. Press any button or switch to wake the unit.

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## Manual Sleep Mode

When the unit goes to sleep automatically, pressing any of the switches will wake it. This is very convenient, but if the unit is to be transported while not in use, inadvertent presses of any switch will wake the unit, reducing battery charge. To avoid this situation, there is an option

to manually put the unit to sleep:

Simply press and hold the channel button (F) until all the LEDs light, then release. The iSwitch is then asleep and will not wake when a switch is pressed. Instead, press either Channel or Mode (F or H) briefly to wake the unit.

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## Battery Life and Battery Charging

A fully charged battery gives approximately 40 hours of use. When the battery is getting low, the Charging LED (E) begins to blink red. This is an indication that you should charge the battery soon.

Plug the charging cable into the charging socket (D) and then into a USB socket on a computer. Ensure the computer is turned on.

While charging, the Charging LED will be illuminated green. Once charging is complete (a matter of a few

hours if fully discharged) the charging LED will be extinguished. You can then unplug the cable.

*Note that you can continue using iSwitch while it is charging*

*iSwitch plugs into a computer USB port for charging purposes only - it does not give a functional connection this way.*

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## Maintenance

Your iSwitch has no user serviceable parts. If repair is necessary the unit should be returned to Pretorian Technologies or an authorised distributor.

iSwitch contains a lithium ion battery that isn't user replaceable. Although the unit uses the very latest battery technology, it may eventually need to be replaced.

Disposal of batteries is often subject to local laws. Please consult your local authorities for information relating to your locale. Never dispose of a battery in fire.

# Troubleshooting

If your iSwitch doesn't operate correctly, please use the following guide to determine the cause. If, after following this guide, your unit still doesn't operate, please contact your supplier before returning it.

Symptom	Possible Cause/ Remedy
My iSwitch is not 'discoverable' on my iPad	<ul style="list-style-type: none"><li>• Ensure battery is charged.</li><li>• Ensure unit is awake by pressing mode or channel button.</li><li>• Unit may be connected with another iPad which is in range. Use 'forget this device' in Bluetooth menu of other iPad to make unit available again.</li></ul>
My iSwitch has been connected to this iPad before but won't connect now.	<ul style="list-style-type: none"><li>• Re-connection should be automatic but if difficulties persist, try 'forget this device' and then re-connect. This usually resolves any connection issues.</li></ul>
My iSwitch does not wake up when I press a switch.	<ul style="list-style-type: none"><li>• iSwitch has been put to sleep manually. Press either channel or mode buttons to wake unit.</li></ul>
When I select timed play, the music stops.	<ul style="list-style-type: none"><li>• Ensure iPad playback is paused before selecting a timed play.</li></ul>

## Warranty

Your iSwitch is warranted against defects in manufacture or component failure. The unit is designed for domestic and educational applications. Use outside these areas will invalidate the warranty. Unauthorised repair or modification, mechanical abuse, immersion in any liquid or connection to incompatible equipment will also invalidate the warranty.

The Apple brand name and iOS trademark are used for identification purposes only and are acknowledged.



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