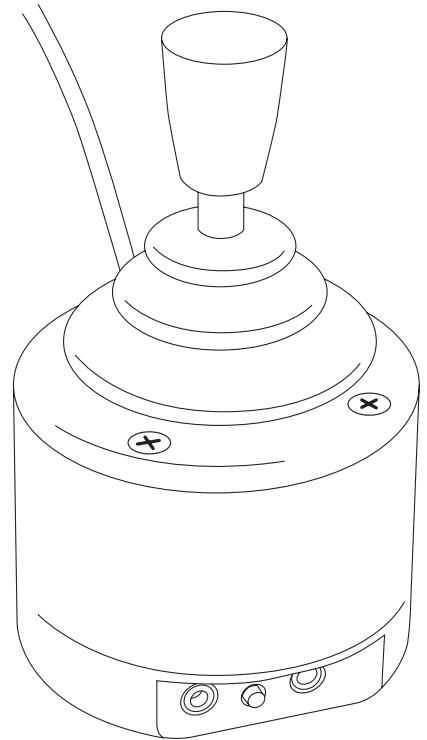


INSTRUCTIONS

Ultra Joystick with Gaming Features



Pack Contents

Carefully check the contents of the box, which are:

Ultra Joystick
T-Bar and Soft Ball handles
Pack of mounting screws
These instructions

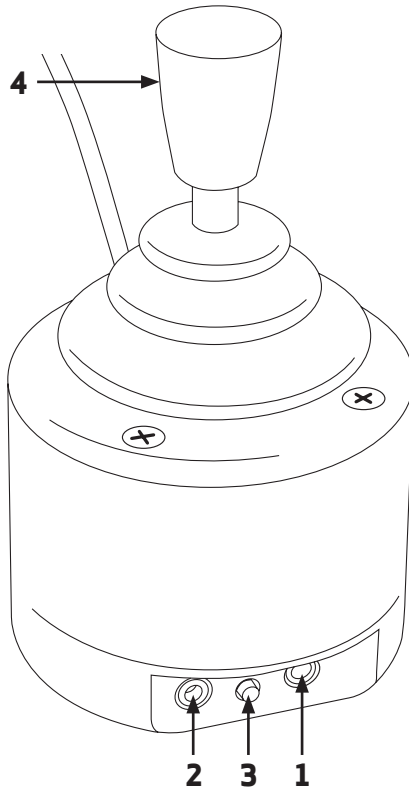
Product Description

Perfect for use with mounting systems, the Ultra Joystick is an extremely robust, metal-bodied USB joystick which has a small footprint and is ideal for users who move the cursor or play games with their chin, head, or who need the joystick mounted in a particular position. Each of the two switch sockets may be programmed to function as left click, right click, drag-lock, double click,

cursor speed setting, or as a Cursor/ Gaming mode switch. Alternatively, for users who find switch use difficult, a Dwell Click function can be programmed to allow Ultra Joystick to be used entirely without switches in Cursor mode. Four cursor speed settings allow the unit to be configured to the user's precise needs. Includes audible feedback, which may be turned off if not required. No drivers are required.

Features

- **Extremely rugged, metal construction.**
- **Switchable between Cursor and Gaming output.**
- **Suitable for use with PCs, Macs, Chromebooks and phones/ tablets with a suitable socket.**
- **Industry standard threaded holes make the unit ideal for mounting systems.**
- **Two programmable sockets allow the use of any type of switch.**
- **Programmable orientation allows the unit to be mounted in any position.**
- **Dwell Click function offers the possibility of using without any switches.**
- **Programmable cursor speed setting in Cursor mode.**
- **All settings retained in non-volatile memory.**
- **Audible feedback, which may be optionally turned off.**
- **No drivers required.**
- **Dimensions: 60 x 60 x 110 mm**



Compatibility

In **Cursor Mode**, **Ultra Joystick** is compatible with all computers with a USB interface including Personal Computers (PCs), Apple Macintosh (Macs) and Chromebooks. It will also work with larger tablet devices which have full-sized USB ports. It can also work with all iPhone/iPads running iOS13 and later and with some Android tablets with micro-USB ports via a suitable adapter (adapter not supplied). This product cannot operate via legacy PS/2 ports even with an adaptor.

In **Gaming Mode**, **Ultra Joystick** is compatible with Personal Computers (PCs) and Xbox via an Xbox Adaptive Controller.

Installation

Simply plug your **Ultra Joystick** into any available USB port on your computer. You can do this whether or not the computer is powered on. Your computer will automatically configure itself and is ready for use within a few seconds. **Ultra Joystick** never requires any driver files to be installed.

When using with an Xbox Adaptive Controller, plugging your **Ultra Joystick** into the USB socket on the left side gives equivalent operation to the left thumbstick on a standard game controller, while plugging into the USB socket on the right side gives equivalent operation to the right thumbstick.

Switching between Cursor and Gaming Modes

There are two ways to switch between Cursor and Gaming Modes and which you use is largely dependent on how frequently the user needs to switch between them. If switching is infrequent, or if the user never needs to switch, it is best to plug a switch into both sockets and press both simultaneously for 10 seconds until you hear a long beep, indicating the mode has been switched*. The new setting is saved in non-volatile memory and will be recalled every time power is applied. If the user has switches plugged into both sockets for normal operation, this option is also available to the user at any time.

If the user needs to switch between modes more frequently, it may be inconvenient to use the above technique, in which case one socket may be programmed to function as a Mode Switcher. See **Learn Mode 1** for more details.

Ultra Joystick ships in Cursor mode and if that is all that is required, Gaming mode may be completely disregarded.

**When the switches are first pressed while in Cursor Mode, the unit may beep due to double-click, or drag-lock being engaged, according to individual settings. Continue to press both buttons in any case and they will be cancelled as the unit switches into Gaming mode.*

Learn Modes

There are a number of settings that allow you to configure Ultra Joystick to your exact needs before you begin using it. These are accessed via Learn Modes 1 & 2 and are also stored in internal non-volatile memory to be automatically recalled whenever you use the unit, even if you swap computers. Both Learn Modes may be configured irrespective of whether you are in Cursor or Gaming Mode.

Learn Mode 1

To make changes to the Orientation of the unit, the functions of each switch socket and buzzer function, you must first go into Learn Mode 1. To enable you to make the necessary changes, you will need to plug a switch into each of the sockets [1] and [2] even if you won't be using them for normal operation.

Step 1. Entering Learn Mode 1.

Press and hold the Feature button [3] until you hear an ascending beep. The unit is now in Learn Mode 1 and will accept changes to the settings, as follows:

Step 2. Orientation (applies to both Cursor and Gaming modes).

Move the joystick in the direction you want the cursor to move 'up'. There will be no immediate movement but when your Ultra Joystick has understood your instruction it emits a single beep and Ultra moves in the direction you selected*. The unit can be used in any of the positions shown in Figure 1. The default setting is with the computer lead on the right side of the unit. This, together with the option to mount your Ultra Joystick, allows it to be operated in many different ways.

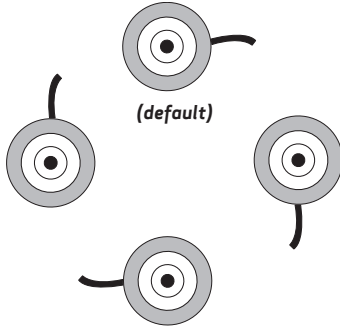


Figure 1: Orientation possibilities

If Orientation is the only setting you wish to change, press the Feature button [3] briefly and the unit exits Learn Mode 1, emitting a descending beep and saving the new setting. Otherwise, proceed to set up the buzzer:

* Although this setting applies to both Cursor and Gaming modes, it is usually easiest to set it up while in Cursor mode.

Step 3. Buzzer (applies to both Cursor and Gaming modes).

Ultra Joystick is fitted with a buzzer which gives an audible indication of operations such as drag lock and unlock, double click, dwell click, entering Learn Modes etc. Depending on the environment that Ultra Joystick will be used in, it may sometimes be beneficial to turn off the buzzer.

If you would like the buzzer to be enabled, press the switch plugged into socket [1]. If you prefer it to be disabled, press the switch plugged into socket [2]. Note that the buzzer continues to operate in the Learn Modes, even if disabled.

If you do not wish to configure any more of the settings, press the Feature button [3] briefly now and the unit exits Learn Mode 1, emitting a descending beep and saving all the new settings. Otherwise, proceed to set up the switch sockets:

Step 4. Switch Socket Settings (applies to Cursor mode only).

In this step, the switch plugged into socket [1] sets the function of socket [1] and the switch plugged into socket [2] similarly sets the function of socket [2]. Table 1 shows the settings that are available on both sockets and the number of beeps emitted for each.

The first press of each switch will not make any changes; instead it confirms the current setting. If this is not the setting you require, press the associated switch repeatedly until the required number of beeps is heard. If you are only using one of the sockets there is no need to set up the other.

The existence of the Cursor Speed setting in Table 1 allows either of the switches to be used to set the cursor speed if required, for example if the user cannot access the Feature button [3] to do so. (Note that the Cursor Speed option is only effective in Cursor mode). The Mode Switch option allows the user to switch between Cursor and Game mode using a single switch.

Once you have set up both sockets, press the Feature button [3] briefly and the unit exits Learn Mode 1, emitting a descending beep and saving all the new settings.

Switch Setting	Number of beeps
Left Click	1 - default for socket [1]
Double Click	2
Drag-Lock	3
Right Click	4 - default for socket [2]
Cursor Speed	5
Mode Switch	6

Table 1: Switch Socket Settings

Learn Mode 2 (applies to Cursor mode only).

To make changes to Dwell Click function, you must first go into Learn Mode 2. To enable you to make the necessary changes, you will need to plug switches into both sockets [1] and [2] even if you won't be using them for normal operation.

Step 1. Entering Learn Mode 2.

Press and hold the Feature button [3] and the switch plugged into socket [1] together until you hear an ascending beep. The unit is now in Learn Mode 2 and will accept changes to the settings, as follows:

Step 2. Dwell Click Function and Dwell Time.

In this step, the switch plugged into socket [1] sets which switch function is used by Dwell Click and the switch plugged into socket [2] sets the Dwell Time. Table 2 shows the Dwell Click settings that are available whereas Table 3 shows the Dwell Time settings.

The first press of each switch will not make any changes; instead it confirms the current setting. If this is not the setting you require, press the switch repeatedly until the required number of beeps is heard. Note that one beep after pressing the switch on socket [1] indicates that the Dwell Click function is disabled, in which case the Dwell Time is irrelevant and does not need to be configured.

Dwell Click Function Setting	Number of beeps
Off	1 - default
Left Click	2
Double Click	3
Drag-Lock	4
Right Click	5

Table 2: Dwell Click Function Settings (set using socket [1])

Dwell Time Setting	Number of beeps
1 second	1
2 seconds	2
3 seconds	3 - default
4 seconds	4
5 seconds	5

Table 3: Dwell Time Settings (set using socket [2])

When you have finished setting the Dwell Click Function and Dwell Time, press the Feature button [3] briefly and the unit exits Learn Mode 2, emitting a descending beep and saving all the new settings.

Cursor Speed Setting

Ultra Joystick has four speed settings to optimise the speed of the cursor according to individual user's needs. To change the speed, press the Feature button [3] on the side of the unit briefly. Each time it is pressed, the unit emits between one and four beeps to indicate the speed, with four beeps being the fastest. The speed setting is retained in memory and is automatically recalled whenever the unit is plugged in or the computer powered on.

Alternatively, one of the switch sockets may be programmed to be Cursor Speed, allowing the speed to be changed using an attached switch for users who need to change the cursor speed regularly.

This setting only applies while in Cursor mode.

Drag Lock

Drag Lock is a feature which latches the left button on after the switch is released, allowing you to move icons around on screen or select multiple items by 'lassoing' them. Where a switch is programmed to function as Drag Lock, the first press of the switch turns on the drag feature. The unit also emits a beep if the buzzer is enabled. To release the Drag Lock, press any switch. This setting only applies while in Cursor mode.

Double Click

Double clicking can be especially difficult for some users, so we have provided the facility to double click just by pressing a switch once. The unit emits two beeps in rapid succession whenever a switch is pressed that is set to Double-Click, provided the buzzer is enabled. This setting only applies while in Cursor mode.

Dwell Click

For users who find it difficult to use a switch to select items on screen, the Dwell Click feature can be enabled to click after a predetermined period of time after the cursor last moved. This allows the user to move the cursor over an item to be selected or clicked and simply wait, eliminating the need for any switches connected to the Ultra Joystick. The time delay before clicking can be chosen, along with the precise click operation which will take place. Please refer to Learn Mode 2 above for details on how to program these settings. This setting only applies while in Cursor mode.

Sockets

Ultra Joystick has two sockets. In Cursor mode, their functions are defined by the settings in Learn Mode 1. In Gaming mode, socket [1] is always gamepad button 1 and socket [2] is gamepad button 2 unless it has been set up as Mode Switch (see Table 1).

Mounting

Your Ultra Joystick is designed to be mounted and uses an industry standard spacing between its two threaded mounting holes on the underside of the unit. Although screws are provided with the product to facilitate easy mounting, if you should misplace them, they are M4 threaded machine screws with a maximum thread length inside the unit of 20mm (0.8"). Please do not attempt to use an imperial sized machine screw, otherwise the thread may be damaged. Pretorian Technologies, or its distributors, can provide replacement machine screws if required.

Maintenance

Ultra Joystick has no user serviceable parts. If repair becomes necessary the unit should be returned to Pretorian Technologies or an authorised distributor.

Warranty

Ultra Joystick is warranted for 24 months from the date of purchase against defects in manufacture or component failure. The unit is designed for domestic, educational and commercial applications. Use outside these areas will invalidate the warranty. Unauthorised repair or modification, mechanical abuse, immersion in any liquid or connection to any equipment other than a host computer will also invalidate the warranty.



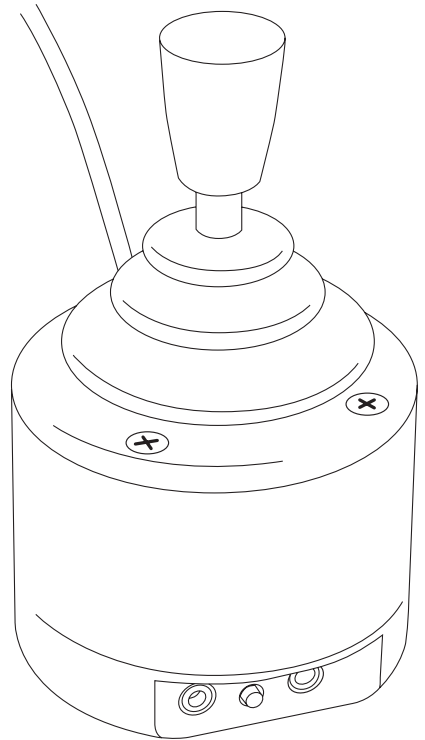
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S040124 Issue 2
For use with firmware versions 89.1 onwards

www.pretorianuk.com

INSTRUCTIONS

Ultra Joystick



Pack Contents

Carefully check the contents of the box, which are:

Ultra Joystick
T-Bar and Soft Ball handles
Pack of mounting screws
These instructions

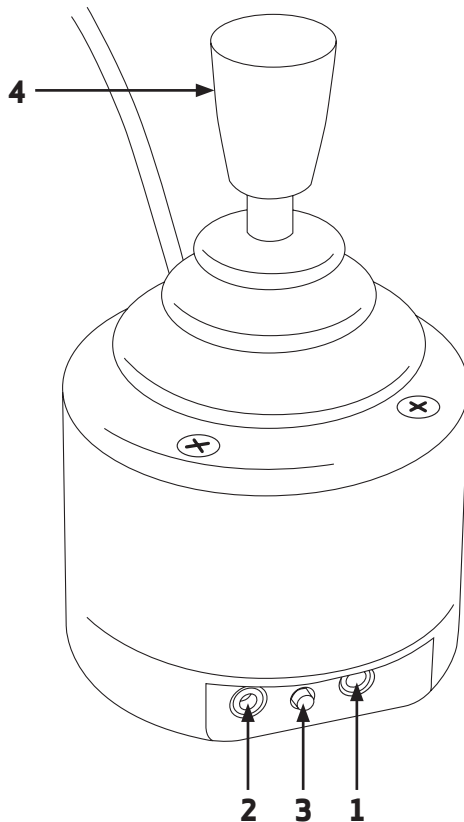
Product Description

Perfect for use with mounting systems, the Ultra Joystick is an extremely robust, metal-bodied USB joystick which has a small footprint and is ideal for users who move the cursor with their chin, head or who need the joystick mounted in a particular position. Each of the two switch sockets may be programmed to function as left click, right click, drag-lock, double click or cursor speed setting.

Alternatively, for users who find switch use difficult, a Dwell Click function can be programmed to allow Ultra Joystick to be used entirely without switches. Four cursor speed settings allow the unit to be configured to the user's precise needs. Includes audible feedback, which may be turned off if not required. No drivers are required.

Features

- Extremely rugged, metal construction.
- Suitable for use with PCs, Macs, Chromebooks and tablets with a suitable socket.
- Industry standard threaded holes make the unit ideal for mounting systems.
- Two programmable sockets allow the use of any type of switch.
- Programmable orientation allows the unit to be mounted in any position.
- Dwell Click function offers the possibility of using without any switches.
- Programmable cursor speed setting.
- All settings retained in non-volatile memory.
- Audible feedback, which may be optionally turned off.
- No drivers required.
- Dimensions: 50 x 50 x 110 mm.



Compatibility

Ultra Joystick is compatible with all computers with a USB interface including Personal Computers (PCs), Apple Macintosh (Macs) and Chromebooks. It will also work with larger tablet devices which have full-sized USB ports. It can also work with some Android tablets with micro-USB ports via a suitable adaptor (not supplied). This product cannot operate via legacy PS/2 ports even with an adaptor.

Installation

Simply plug your **Ultra Joystick** into any available USB port on your computer. You can do this whether or not the computer is powered on. Your computer will automatically configure itself and is ready for use within a few seconds. **Ultra Joystick** never requires any driver files to be installed.

Learn Modes

There are a number of settings that allow you to configure **Ultra Joystick** to your exact needs before you begin using it. These are accessed via Learn Modes 1 & 2 and are also stored in internal non-volatile memory to be automatically recalled whenever you use the unit, even if you swap computers:

Learn Mode 1

To make changes to the Orientation of the unit, the functions of each switch socket and buzzer function, you must first go into Learn Mode 1. To enable you to make the necessary changes, you will need to plug a switch into each of the sockets [1] and [2] even if you won't be using them for normal operation.

Step 1. Entering Learn Mode 1.

Press and hold the Feature button [3] until you hear an ascending beep. The unit is now in Learn Mode 1 and will accept changes to the settings, as follows:

Step 2. Orientation.

Move the joystick in the direction you want the cursor to move 'up'. There will be no immediate cursor movement but when your **Ultra Joystick** has understood your instruction it emits a single beep and the cursor moves in the direction you selected. The unit can be used in any of the positions shown in Figure 1. The default setting is with the computer lead on the right side of the unit. This, together with the option to mount your **Ultra Joystick**, allows it to be operated in many different ways.

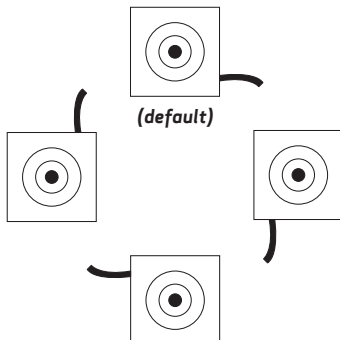


Figure 1: Orientation possibilities

If Orientation is the only setting you wish to change, press the Feature button [3] briefly and the unit exits Learn Mode 1, emitting a descending beep and saving the new setting. Otherwise, proceed to set up the buzzer:

Step 3. Buzzer.

Ultra Joystick is fitted with a buzzer which gives an audible indication of operations such as drag lock and unlock, double click, entering Learn Modes etc. Depending on the environment that Ultra Joystick will be used in, it may sometimes be beneficial to turn off the buzzer.

If you would like the buzzer to be enabled, press the switch plugged into socket [1]. If you prefer it to be disabled, press the switch plugged into socket [2]. Note that the buzzer continues to operate in the Learn Modes, even if disabled.

If you do not wish to configure any more of the settings, press the Feature button [3] briefly now and the unit exits Learn Mode 1, emitting a descending beep and saving all the new settings. Otherwise, proceed to set up the switch sockets:

Step 4. Switch Socket Settings

In this step, the switch plugged into socket [1] sets the function of socket [1] and the switch plugged into socket [2] similarly sets the function of socket [2]. Table 1 shows the settings that are available on both sockets and the number of beeps emitted for each.

The first press of each switch will not make any changes; instead it confirms the current setting. If this is not the setting you require, press the associated switch repeatedly until the required number of beeps is heard. If you are only using one of the sockets there is no need to set up the other.

The existence of the Cursor Speed setting in Table 1 allows either of the switches to be used to set the cursor speed if required, for example if the user cannot access the Feature button [3] to do so.

Once you have set up both sockets, press the Feature button [3] briefly and the unit exits Learn Mode 1, emitting a descending beep and saving all the new settings.

Switch Setting	Number of beeps
Left Click	1 - default for socket [1]
Double Click	2
Drag-Lock	3
Right Click	4 - default for socket [2]
Cursor Speed	5

Table 1: Switch Socket Settings

Learn Mode 2

To make changes to Dwell Click function, you must first go into Learn Mode 2. To enable you to make the necessary changes, you will need to plug switches into both sockets [1] and [2] even if you won't be using them for normal operation.

Step 1. Entering Learn Mode 2.

Press and hold the Feature button [3] and the switch plugged into socket [1] together until you hear an ascending beep. The unit is now in Learn Mode 2 and will accept changes to the settings, as follows:

Step 2. Dwell Click Function and Dwell Time.

In this step, the switch plugged into socket [1] sets which switch function is used by Dwell Click and the switch plugged into socket [2] sets the Dwell Time. Table 2 shows the Dwell Click settings that are available whereas Table 3 shows the Dwell Time settings.

The first press of each switch will not make any changes; instead it confirms the current setting. If this is not the setting you require, press the switch repeatedly until the required number of beeps is heard. Note that one beep after pressing the switch on socket [1] indicates that the Dwell Click function is disabled, in which case the Dwell Time is irrelevant and does not need to be configured.

Dwell Click Function Setting	Number of beeps
Off	1 - default
Left Click	2
Double Click	3
Drag-Lock	4
Right Click	5

Table 2: Dwell Click Function Settings (set using socket [1])

Dwell Time Setting	Number of beeps
1 second	1
2 seconds	2
3 seconds	3 - default
4 seconds	4
5 seconds	5

Table 3: Dwell Time Settings (set using socket [2])

When you have finished setting the Dwell Click Function and Dwell Time, press the Feature button [3] briefly and the unit exits Learn Mode 2, emitting a descending beep and saving all the new settings.

Cursor Speed Setting

Ultra Joystick has four speed settings to optimise the speed of the cursor according to individual user's needs. To change the speed, press the Feature button [3] on the side of the unit *briefly*. Each time it is pressed, the unit emits between one and four beeps to indicate the speed, with four beeps being the fastest. The speed setting is retained in memory and is automatically recalled whenever the unit is plugged in or the computer powered on.

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Double clicking can be especially difficult for some users, so we have provided the facility to double click just by pressing a switch once. The unit emits two beeps in rapid succession whenever a switch is pressed that is set to Double-Click, provided the buzzer is enabled.

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