

wave2



User Manual ver1 rev1



Important: Check www.tangentwave.co.uk for updates

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1. Important safety instructions

	<ul style="list-style-type: none">• Read this manual first before using the panel.• Keep these instructions for future reference.• Heed all warnings in this manual.• Follow all instructions in this manual.• Do not use this apparatus near water.• Install and use the panel only as instructed.• Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.• Unplug the apparatus when it's not going to be used for long periods of time.• Refer all servicing to qualified personnel. Servicing is required when:<ul style="list-style-type: none">○ The apparatus has been damaged in any way.○ Liquid has been spilled on the apparatus.○ Objects have fallen into the apparatus.○ The apparatus has been exposed to rain or moisture.○ The apparatus does not operate normally.○ The apparatus has been dropped.
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2. CE Declaration of Conformity



Tangent Wave Ltd of 4 Crowbush Farm, Luton Road, Toddington, United Kingdom declare that our Wave2 product is in compliance with the essential requirements and other relevant provisions of directive 2014/30/EU and EN 55032:2015, and carries the CE mark accordingly.

Toddington, July 2018



Andy Knox
Operations Director

3. FCC Compliance Statement



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.

4. Disposal and Recycling information



This symbol indicates that your product must be disposed of properly according to local laws and regulations. When your product reaches the end of its life please contact your supplier for disposal and recycling options.

5. About this manual

This manual applies to the Wave2 control panel. For the latest updates please check www.tangentwave.co.uk and look under the product page there.

This manual does not tell you how to use the panel with your software. For that information please contact your software vendor. Where we have been provided with information by the software vendors we have included this.

If you find any errors with this manual or you have any suggestions then please contact Tangent Wave. It is only through your feedback and suggestions that we can improve our services and products.

6. What's in the box

- Wave2 leaflet.
- Wave2 panel.
- 3 x Balls.
- 1 x USB cable.

7. Requirements

- Any operating system that has a built in USB HID driver. Current versions of Mac OS X, Windows and Linux should have this.
- A computer with at least 1 spare USB port (1.0 or greater) that can supply 500mA. Note some older laptops or laptops running from battery cannot provide 500mA.
- If using a USB hub then the hub needs to be able to supply 500mA to the USB socket which the panel is connected to.
- If using an active USB extender this must be able to supply 500mA.
- The software you intend to use the panel with must support the Wave2 panel. Please check with your software manufacturer or our website.
- Access to the internet. This is required to download the manuals and any support software you may require from our website.

8. About the Wave2 control panel

The Wave2 control panel is aimed at the colour correction and video post production industry. It doesn't do any processing of the video data itself, it just provides a physical user interface to software packages, much like your computer keyboard and mouse. It is designed to improve speed, ease of use, and efficiency of your software by putting the controls at your finger tips without having to access them through menu functions and mouse clicks. Colourists will be familiar with the three trackerball layout for adjusting primaries and they will know how essential it is to have them on the panel for this purpose.

8.1 What the panel will control in your software

The panel is designed to be generic. What we mean by generic is that it is not designed specifically to be used with just one type of software. This means the function any of the controls is not determined by Tangent – it is decided by the software that you are using the panel with.

Some applications support the Tangent Mapper which will allow you to customise what the panel does – see our website for which applications support this. If an application does not support our Mapper the mapping will have to be fixed by the application manufacturer.

8.2 Software

Some applications will work with the panel without any additional software being installed. Some applications will require the Tangent Hub which is available to download from our website, or may be distributed as part of your application. You should check with the user manual for your application, or refer to our website, to determine if your application requires the Tangent Hub.

8.3 Power and communication

The panel receives its power and communicates with your computer through the USB cable. The only requirement is that your computer supports high power USB devices - that is it can supply 500mA through its USB port. Most desktop computers can, it is only laptop or portable devices that sometimes can't. If you're in doubt check your computer's specifications.

9. Positioning and use of the panel

	<p>Health Warning</p> <p>Some experts believe that use of any human input device may cause serious injury to hands, wrists, arms, neck or back. If you feel pain, numbness, weakness in these areas see a qualified health professional. To reduce the risks of such injuries follow these precautions:</p> <ul style="list-style-type: none">• Take frequent short breaks. Get up and walk around at least a couple of times every hour.• Vary your tasks throughout the day.• Keep your shoulders relaxed with your elbows at your side. Position your control panel so you don't have to reach.• Adjust your chair and control panel so your wrists are straight.• Avoid resting your wrists on sharp edges.
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10. Getting started

10.1 Preparing the balls

Before using the panel, remove each ball from its cup and rub the ball between your hands. This deposits natural oils from your skin on to the surface of the ball which will help it to run smoothly.

10.2 Connecting the panel to your computer

Connect the panel to a USB port on your computer, making sure you do not press any buttons on the panel as you do so. The USB port must be able to supply 500mA or more. Note that some early computers and laptops running of batteries won't be able to supply 500mA.

10.3 USB hubs and extenders (or repeaters)

You can use a USB hub to connect the Wave2 to your computer. The important thing to note is that the hub must be powered and must be able to provide 500mA to the USB port the panel is connected to. This will most probably mean the USB hub will be powered with an external power supply. The power supply must therefore be rated to supply 500mA or more. If you're connecting anything else to the USB hub then it will need to be correspondingly rated higher.

If you use an extender (or repeater) it must be able to supply 500mA, and the above rules for USB hubs still apply regarding external power supplies.

10.4 Install the Tangent Hub if your application requires it

Some applications require the Tangent Hub to be installed. Check our website or your application's website to see if the Tangent Hub is needed. If it is you can download it from the Support page of our website.

10.5 Select the Wave2 as the panel type in your application

Some applications require you to select Wave2 as the panel type being used with it. Check your application's manual to see if this step is needed. Note where possible, we post this information on the support page of our website. If your software just has Wave listed and not Wave2 then select Wave, it will still work.

11. Trouble-shooting

11.1 Are you using a USB hub or extender?

If you're using a USB hub or extender then remove this and plug the panel directly into your computer. If the panel starts to work then it's your USB hub or extender that is at fault. See the section "USB hubs and extenders (or repeaters)".

If the panel still doesn't work after removing the USB hub or extender then proceed with the trouble shooting steps below. If these don't solve your problem then contact Tangent support.

11.2 A button doesn't work

First check that the software you are using the panel with makes use of the button that is broken.

Unplug and plug the panel back in again, making sure you do not press any buttons on the panel as you do so.

If the button still does not work then please contact Tangent support.

11.3 A knob doesn't work

First check that the software you are using the panel with makes use of the control that is broken.

Unplug and plug the panel back in again, making sure you do not press any buttons on the panel as you do so.

If the control still does not work then please contact Tangent support.

11.4 A trackerball doesn't work

First check that the software you are using the panel with makes use of the ball that is broken.

Unplug and plug the panel back in again, making sure you do not press any buttons on the panel as you do so.

If the ball still does not work then please contact Tangent support.

Note: from time to time you will need to clean the trackerballs. See Care of your panel - Cleaning the balls. If there is a build up of dust inside the panel it may affect the optical sensor used to track the movement of the balls.

Note: if the ball is moved too quickly then the optical sensor will not be able to track it. This will produce erratic behaviour in the output from the ball. Try to keep movements of the ball smooth and avoid rapid changes of direction or spinning the ball.

11.5 My software isn't communicating with the panel

Generally problems with communication are related to setting up your software to talk to the panel. See the sections **Install the Tangent Hub if your application requires it** and **Select the Wave2 as the panel type in your application**.

Make sure the USB cable is connected properly. Also make sure the USB port on your computer can supply the 500mA the panel requires. Some laptops do not allow this. See the section “USB hubs and extenders (or repeaters)”

If the panel still doesn't work after checking the above then contact Tangent support.

12. Care of your panel

Your panel should not be cleaned with harsh abrasives or chemical cleaning products. If they become dirty wipe them with a soft damp cloth.

Sharp objects, such as watch straps and jewellery, will scratch the plastic so be careful not to bring such items in to contact with the panel.

12.1 Cleaning the balls

From time to time you may need to clean the balls and the trackerball unit that holds them.

To do this first unplug the panel and remove the ball.

Clean the ball with a soft damp cloth. Then rub the ball between your hands – this deposits natural oils from your skin on to the surface of the ball which will help it to run smoothly.

To clean inside the trackerball unit use a damp cotton bud, paying close attention to the three white balls the red ball sits on, and the lens which houses the optical sensor. Do not try and remove the lens and do not press too hard on it. Be gentle and do not have too much water on the cotton bud – it just needs to be slightly damp.

13. Firmware updates

The firmware in your Wave2 panel was the most up to date version when your panel was manufactured. It is possible however that a newer version may be available from our website www.tangentwave.co.uk.

Check your panel firmware version with what is on the website.

Your version is displayed on the Wave2 screens when you first plug the panel in.

Make sure you follow the firmware update instructions that come with the update.