SONUUS®

Wahoo

Firmware Release Notes

Version 1.5.0

Introduction

The **sonuus Wahoo** has firmware (internal software) which can be upgraded. This document details the changes in the various versions of firmware which have been made available.

> ### To update firmware on the **Wahoo**
>
> ① While powering-on the **Wahoo**, press and hold: **FILTER** + ▲.
>
> ② The numeric display now shows **UPd** to indicate firmware update mode is active.
>
> ③ Connect the **Wahoo** to your computer via USB (if not already done during power-on).
>
> ④ Follow the steps in the Firmware Updater manual you have downloaded.

Version 1.5.0
NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

Enhancements
• Improvements to tap-tempo to make it feel more natural.

New Features

• Added new setlist feature. Configured through the Desktop Editor, and enabled when the **Wahoo** is locked. Perfect for using the **Wahoo** live.

• Added soft-MIDI through. It allows any MIDI messages received to be echoed to the MIDI-out (USB-MIDI).

Version 1.3.0
NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

Bug Fixes
• LFO retrigger and envelope punch works again (accidentally disabled in version 1.2.1).

• LFO phase now takes account of **div** setting.

Enhancements
• LFO steps behaviour improved for non-symmetric waveforms (saw up/down).

• Improved detection of transients for detecting retriggers. This has been made much more robust.

• Improved MIDI clock sync: tighter alignment with sequencer (now uses MIDI start, continue messages for more accurate start of sync).

New Features

- Added phase control for MIDI-Sync'd LFO. You can now tweak the LFO phase to let it run ahead of, or behind, the beat (you have free control of the phase).

Version 1.2.1

NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

New Features

- When the **Wahoo** is locked, the LEVEL knob will now allow you to select presets. This lets you scroll through the preset list much faster to get to the preset you want.

- When the **Wahoo** is locked, the **FILTER 1/2** LEDs and the **MODE** LEDs will light (dimmed) to indicate the current preset's configuration. This lets you see at a glance if the preset is a pedal-controlled preset, and envelope preset, etc.,

- New Demo Mode has been added. This limits you to 13 selected presets (only when locked). It also illustrates how the forthcoming "set list" feature will work when this is added. See this video for more details: http://youtu.be/k_thtrNoeuk

Version 1.2.0

NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

Bug Fixes

- LFO tempo could be wrong when sync'd to MIDI clock. This is now correct.

Enhancements

- Improvements to how the knobs are handled to make this more robust against hardware glitches when they are turned quickly (all encoders like this can be glitchy, so the firmware tries to avoid this. This update adds more countermeasures to improve the user experience).

New Features (Envelope Mode)

- Improved envelope tracker so that it can track signal decays more quickly without compromising the smoothness of the tracking (in typical envelope filters as the decay speed is made faster, the envelope will "wobble" across the envelope peaks).

- Added steps to the envelope, so you now have the choice of the traditional smooth sweeps, or quantised sweeps.

- Envelope mode has been "pedalised" to allow dynamic variation of the envelope parameters. When pedal control is enabled, you get a hi and lo option on each parameter, allowing the envelope filter to morph between various settings giving you much more dynamic control of the envelope filter sound.

New Features (LFO Mode)

- When the effect is enabled, the LFO phase is now reset (unless sync'd to MIDI). This ensures the sound starts from the same point each time you enable the effect; particularly useful when slow LFOs are being used.

- LFO mode has been extended to allow pedal control of the division (an often requested feature). When enabled, you can select a hi and lo div and the LFO will seamlessly switch between these as you move the pedal.

New Features (MIDI Options)

- More MIDI options (and a new MIDI tab on the editor). This lets you select channels and controllers -- previously these were fixed, or in the case of the remote footpedal, not implemented. These new settings are only available using the editor, not on the Wahoo itself.

Other features

- Added an option to display the pedal position on the 7-seg display. When enabled, it will show "=00" to "=99" to indicate the pedal position. This is useful if you like to "cock" the wah and have it in the correct position before enabling the effect. So you can see where the pedal is and get to the same sound each time. This is available on the Wahoo through the custom setting "PoS".

Version 1.1.2

NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

Bug Fixes

- Disabled USB Suspend. While this allows the **Wahoo** to sleep when a USB host sleeps, it can sometimes cause problems if a loose USB cable is used. In this case a partially unplugged cable would cause the **Wahoo** to sleep incorrectly. It could also cause the pedal to appear to stop functioning.

Version 1.1.1

NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

Bug Fixes

- The pedal mode (PEd, CtL, rEM, not) was not stored in a saved preset, so the pedal mode would always revert to pedal control when recalling such a preset. Now, the MIDI control method is correctly stored.

Version 1.1.0

NOTE: Existing settings stored in the **Wahoo** will not be affected by this update.

Bug Fixes

- None.

Enhancements

- LFOs have been improved so that the sound even smoother at higher speeds.

New Features

- Added new "punch" feature to Envelope mode. "punch" boosts the sensitivity when a new note edge is detected, resulting in a squelchier, more punchy sound. Access "punch" via the new envelope MODE parameter: **Pun** takes values [**off**, 1–200].

- LFO retriggering has been added which allows the LFO to restart from a specific position when a new note edge is detected. This gives you a predictable sound at the start of notes. Access via the new LFO MODE parameter: **rtG** takes values [**on**, **oFF**].

  When LFO retrigger is enabled, the phase (**PhA**) of the LFO when it restarts can be adjusted: values [0–63].

  Similarly, a new delay (**dLy**) can now be set which lets you create more synth-like sounds by gradually fading-in the depth of the LFO. **dLy** is set in seconds: [**oFF**, 0.1–25] in 0.1s increments.

- Added new way to enable and disable the effect with the footpedal. Access this via the Custom parameter **P.En** (Pedal enable). In addition to the existing settings (**on** and **oFF**), the new settings **o.Lo** and **o.hi** have been added. The new modes cause the effect to be enabled and disabled when the footpedal reaches the heel-down (**o.Lo**) and toe-down (**o.hi**) positions.

  Another new custom parameter, "pedal off-time" (**P.ti**) has been added to configure how long the footpedal needs to stay in the hi or lo position before the effect is turned off. This is set in 0.1s increments: values [0.1 – 25.0].

  When one of these new pedal modes is activated (**o.Lo** or **o.hi**), the footswitch no longer enables or disables the effect. Instead, it is used for a new method of foot-operated preset selection. Pressing the footswitch will increment (or decrement) the current preset. Pressing and holding the footswitch will toggle the direction (increment or decrement).

Version 1.0.3
This was the first firmware version.