

# πλ2 Firmware V2.1 Update Release Notes

## - High quality filter (HQF) mode - MIDI Controller #3:

0 = normal mode, HQF off  
1 = second mode, HQF off  
2 = normal mode, HQF on  
3 = second mode, HQF on  
4..127 undefined

On waveform one (#24/#75), second mode's waveforms five, six, seven (undevizesime, quartvizesime, clubvizesime) and bassdrum mode, HQF mode doubles the digital filter's (#18/#74) resolution leading to better sound experience. There's no HQF effect on waveform two, three and four.

## - Legato Playing:

If "note priority" (#89) is set, and the program is monophonic (#26/#77, #27/#78, #126) and you press multiple keys, the lowest will trigger. Now, on releasing further keys, only the highest one will trigger the attack phase of the ADSR envelope again. With this you can play legato on bass sounds a little easier.

## - MIDI Portamento Control (#84):

While portamento is switched off, it's possible to activate portamento for a single note. Please note: Portamento time (#5) will be used for the glide effect.

## - Default bpm speed

On the PL2, MIDI clock is used to sync the speed of ADSR envelope and LFOs. There's an internal default clock for the case no MIDI clock is available. With firmware V2.1 it's possible to select one out of twelve default speeds and store the value into the PL2 along with MIDI channel, note limit, controller map, startup program etc. via firmware update.

*Please note: The internal bpm speed is slightly different in drummode, so both values are displayed.*

## - PL2 V2.1 and PL02.56 controller map

It's possible to assign all 128 MIDI controllers to the available PL2 controllers. You can save, load and even share those with others. Please note: There's a slightly different controller set on firmware V2.1 and PL02.56. The controller map **will be stored** along with the MIDI channel, note limits, default bpm, default mod wheel position (PL02.56 only) and the default program (PL2 starts with after turning on), **along with updating the PL2 firmware.**

*This is an option for advanced users. The editor may no longer work, depending on controllers you change. If you want to eMail gear settings to us, we'll be happy to make it available to the user community.*

## - There's two new presets:

**Program 2** was: Analog Synth, now **Analog Synth 2** (HQF mode) and **Program 6** was: Summer bass, now: **Winter bass** (HQF mode)

*The update doesn't change the 32 user sounds, only the two ROM sounds are modified.*

# Excerpts of the Firmware V2.0 Release Notes

- While the "digital filter cutoff" controller is at zero (0), filter cutoff is controlled via MIDI "note on" velocity now

- Using the filter LFO modulation while "note priority" (#89) is set, modulation gets faster, to make the generation of instant "wobble" effects easy.

- It's possible to fine tune PL2:

Use the pitch bender to find the correct pitch, now while you hold it, change the program (MIDI program change) at least one time. In order to release it, bring the pitch bender to its minimum or maximum position, or reset PL2.

*If you play along with a church organ, you can be sure it's not on 440Hz. Here you go.*

- **Support for MIDI Polyphonic Aftertouch:**

You can increase the volume of each sound, starting at the velocity value up to maximum using polyphonic aftertouch.

- **Functionality for PWM2 (#23/#95) on Waveform #1:**

Using different settings for PWM1 and PWM2 changes the waveform on consideration of two cycles.

- **Waveform (#24/#75) defines the submode in "second mode":** 0-31 = bassdrum mode

32-63: undevizesime (--- \_\_\_\_ - \_ \_ \_)

64-95: quartvizesime (---- \_\_\_\_ - \_ \_ \_ \_)

96-127: clubvizesime (---- \_\_\_\_ - . . . . . - . . . . . - . . . . .)

*It's no longer four, but seven waveforms in total!*

- **Bassdrum Mode:**

Splits the keyboard into a lower part for a bassdrum sound, and an upper part for a noise sound.

While the bass drum sound's pitch is key-controlled, the noise currently has no dependency on which key is played.

*The digital state variable filter samplerate is usually 125kHz, in bass drum mode it's only 50kHz.*

- **Using bassdrum mode changes the meaning of some controllers:**

PWM1 (#25/#76): Timbre of bassdrum

PWM2 (#23/#95): Kick attack of bassdrum

PWM1&2 (#10): Changes timbre and kick at the same time

DC Offset Wave (#83): Release of bassdrum Port. Time (#5): Release time of bassdrum

*While Out Volume (#7) and DC Offset Filter (#22/#94) affect both, the bassdrum and the noise sound, most controllers only effect the noise. This is true for the digital filter, the ADSR envelope and the OSC Volume (#20/#92), which is basically the noise volume here. Some controllers are not used in bassdrum mode.*

<http://www.ploytec.com/pl2> <https://www.facebook.com/PLsquared>