
Octatrack DPS-1 OS 1.31 Release information

Elektron Music Machines

April 16, 2019

IMPORTANT: SECURE YOUR PROJECT TO COMPACT FLASH CARD USING 'PROJECT CARD SYNC' BEFORE UPGRADING AND RESTORE IT USING 'CHANGE PROJECT' AFTERWARDS. THIS IS THE MINIMUM SUPPORTED WAY TO KEEP YOUR PROJECT INTACT BETWEEN OS UPGRADES! SETTING A RESTORE POINT OR BACKING UP YOUR PROJECT TO A COMPUTER HARD DRIVE IS EVEN BETTER.

How to upgrade:

You can upgrade either by using a binary file (.bin) or a SYSEX file (.syx)

Upgrading using a binary file

- Place the binary file in the root of your Compact Flash Card.
- In OS 0.998 or later, select PROJECT ▶ SYSTEM ▶ OS UPDATE, in older OS versions select OS UPDATE in the SYSTEM (**[FUNCTION]**+**[BANK]**) menu.

An OS UPGRADE dialog will show up displaying the name of the binary file and "OS UPGRADE OK".

- Press **[ENTER/YES]** to continue.

A status bar will show the preparation and programming of the flash. Please reboot when the dialog asks you to.

Upgrading using a SYSEX file

- Hold down the **[FUNCTION]** button while powering on. This should take you to the Octatrack boot menu.
- Enter the MIDI UPGRADE mode by pressing the **[TRIG 3]** key.
- Send the SYSEX firmware file to the Octatrack.

To transfer the SYSEX file we recommend using C6 - Sysex Tool by Elektron.

After starting the transfer you should see the trig LED's lighting up, and when the update is done the unit should reset itself and boot the new OS.

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Detailed instructions are available in the EARLY STARTUP MENU chapter in the latest Octatrack users manual.

After some upgrades the bootstrap will also be upgraded, this upgrade is performed right after restarting the Octatrack, *do not turn the power off during the upgrade.*

Please report any bugs you may find using support found at <http://www.elektron.se/support-and-downloads>

Enjoy!

The Elektron development team

List of changes from Octatrack DPS-1 OS 1.30D to 1.31

Improvements

Added screen saver. The screen will have reduced brightness after 5 min of inactivity, and go completely black after an additional 55 min. Does not apply to MKI devices.

List of changes from Octatrack DPS-1 OS 1.30C to 1.30D

Bug fixes

The device would incorrectly report error “DTIM0” in test mode.

List of changes from Octatrack DPS-1 OS 1.30B to 1.30C

Bug fixes

Fader position would sometimes not be stable on some MKII devices.

The device would sometimes report “UI NOT TESTED” at startup, and then respond incorrectly to keystrokes. Does not apply to MKII devices.

List of changes from Octatrack DPS-1 OS 1.30 to 1.30B

Changes

Unsaved RAM recorder slices are not discarded at startup.

Bug fixes

VU meter would sometimes get stuck at max.

Scene locking XDIR to MIN had no effect.

Rec button LED would not flash in real time recording mode.

MIDI output buffer overflow would make the unit freeze.

Encoder/fader input overflow would cause irregular UI behavior.

Reconfiguring the flex memory would make it impossible to trigger flex samples, unless a manual reload of the samples was invoked.

The *Part Edit* command would edit the last selected part, rather than the active part.

List of changes from Octatrack DPS-1 OS 1.25H to 1.30

Changes

MKII hardware support

The MKII keys have built-in LEDs, and two separate LEDs have been added for VU-metering of the internal resampling source in stereo. A number of keys have been added, and some keys have new secondary functions.

[MIDI] toggles the MIDI mode on/off. Secondary function opens the MIDI SYNC menu.

[REC3] facilitates internal resampling. Secondary function opens the recording audio editor.

[PROJ] (project) opens the project menu. Secondary function invokes project saving.

[PART] opens the PART menu. Secondary function opens the PART EDIT menu.

[AED] (audio editor) opens the audio editor for the active context. Secondary function is a shortcut to the SLICE EDIT menu of the audio editor.

[MIX] (mixer) opens the mixer menu. Secondary function toggles the metronome on/off.

[ARR] (arranger) opens the ARRANGER menu. Secondary function toggles arranger mode on/off.

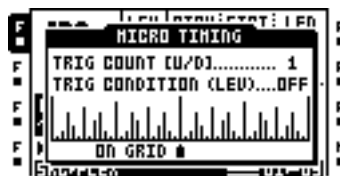
[PTN] (pattern) invokes the pattern selector. Secondary function opens the PATTERN SETTINGS menu.

[BANK] invokes the bank selector. Secondary function opens the TRIG EDIT menu.

[PAGE] has new functionality related to trig conditions. See the text on *fill* in the section below.

Sequencer trig conditions

A trig condition parameter has been added to the TRIG COUNT/MICRO TIMING menu. Open this menu when you are in the grid edit mode, by pressing and holding a trig key, and then press **[LEFT]** or **[RIGHT]**. The condition is changed using the *LEVEL* encoder. It can be set to (and defaults to) OFF, and 64 additional settings. Each setting is a condition, which will decide whether or not the sequencer note should be triggered.



- X % is a random probability condition. There is an X percent chance of it being true.
- A:B will be true on the A'th pattern iteration, then true again after B iterations, repeating indefinitely. You can use this setting to program periodically recurring notes, where the period can be longer than the actual pattern. If you for instance set it to N:4, the note will be triggered every fourth loop of the pattern.

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- FILL is true when the sequencer is in fill mode. Fill mode is activated for one pattern iteration by pressing **[DOWN] + [PAGE]**. It will activate when the pattern loops and remain active until it loops again. It is also possible to momentarily activate fill mode by pressing **[UP] + [PAGE]**. The fill mode will then be active for as long as **[PAGE]** is being held down. To latch the fill mode, press **[UP] + [DOWN] + [PAGE]**. The fill mode will remain active until you press and release **[UP] + [PAGE]**.
 - $\overline{\text{FILL}}$ is true when FILL is not. You can use FILL to program pattern variations. The notes which should be played only in the variation should be set to FILL, and notes which should be excluded from the variation to $\overline{\text{FILL}}$. The variation is then easily accessible from the **[PAGE]** key.
 - PRE is true if the most recently evaluated trig condition on the same track was true.
 - $\overline{\text{PRE}}$ is true when PRE is not. If you program a pattern variation using PRE and/or $\overline{\text{PRE}}$, but set the first note of the variation to use a probability condition, then the whole variation will depend on whether or not the first note triggered.
 - NEI is true if the most recently evaluated trig condition on the neighbour track was true.
 - $\overline{\text{NEI}}$ is true when NEI is not. If you program a pattern variation using NEI and/or $\overline{\text{NEI}}$ on track 3, and have a probability trig before the variation on track 2, then the whole variation will depend on whether or not the note on track 2 triggered.
 - 1ST is true the first pattern iteration (ie. until the pattern has looped). You could use this setting for instance to program a one-shot percussive hit in your pattern. Or just any note that you do not wish to have repeated.
 - $\overline{\text{1ST}}$ is true when 1ST is not.

List of changes from Octatrack DPS-1 OS 1.25G to 1.25H

Bug fixes

A regression caused sample trim points to be reset when loading a project. Fixed.

List of changes from Octatrack DPS-1 OS 1.25F to 1.25G

Bug fixes

A regression caused static samples to be assigned a tempo of 300 BPM when loaded. Fixed.

Trigless locks in the currently active bank were incorrectly converted into trigless trigs when restarting the machine. Fixed.

List of changes from Octatrack DPS-1 OS 1.25E to 1.25F

Bug fixes

The [MIDI clock logic implemented in OS 1.25](#) didn't actually work. Once a MIDI start/continue message was received the unit would not exit MIDI synced mode again unless rebooted. Fixed.

The unit would sometimes crash when loading a new sample to a slot, while playing the sample slot at the same time. Fixed.

List of changes from Octatrack DPS-1 OS 1.25D to 1.25E

Changes

Bug fixes

On some units the MIDI values sent out from the cross fader were reversed. Fixed.

Timestretch did not work properly on 24 bit mono samples. Fixed.

List of changes from Octatrack DPS-1 OS 1.25C to 1.25D

Changes

Cue audio output is never available from the master track. This was not clearly indicated by the interface. The cue level indicators are now greyed out while on the master track, to make this more visible.

Bug fixes

The quantized recording setting wasn't always respected when recording from SRC3 in ONE2 mode. Fixed.

When stopping a track followed by a neighbor track the effects were immediately cut off. Regression in 1.25C. Fixed.

A second or third neighbor track added to an already playing track wouldn't automatically get triggered by the first track unless all tracks had first been stopped. Fixed.

List of changes from Octatrack DPS-1 OS 1.25B to 1.25C

Bug fixes

Fixed error in SPP calculation that would make it skip one position at 343.1.1.

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Fixed undesired click sound that sometimes occurred at the playback direction change in ping pong loop mode.

Fixed the problem in DELAY CONTROL mode where the settings would get stuck if leaving the mode without releasing the **[GRID]** keys first.

Fixed the problem that tempo could not be set with the **[FUNCTION]** key pressed when the tempo window was open on top of the scale setup window.

Using offset in the Arranger could lead to incorrect looping of tracks. Fixed.

Thru Machines would not go silent properly when changing to a pattern with START SILENT set. Fixed.

List of changes from Octatrack DPS-1 OS 1.25 to 1.25B

Changes

Holding **[FUNCTION]**, snap functionality has been added to the Amp, Effects 1 and Effects 2 settings page parameters.

Bug fixes

Retrig of samples when **SLIC** was ON and **LEN** was TIME did not follow the **LEN** setting. Fixed.

List of changes from Octatrack DPS-1 OS 1.22 to 1.25

Changes

Sequencer

Changing from pattern mode to arrangement mode, infinite patterns playing are now changed according to the pattern chaining settings.

If both CLOCK RECEIVE and TRANSPORT RECEIVE are selected the unit will wait for clock after receiving start or continue messages for 16 seconds before considering external sync lost. This, for example, allows for preroll in sequencers not starting clock until preroll is completed.

If only TRANSPORT RECEIVE is enabled the machine will start as soon as possible after receiving start or continue.

MIDI Sequencer

When inserting notes in GRID EDIT mode using an external keyboard, releasing the base note restarts placement of multiple notes from scratch.

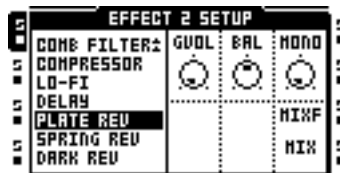
Effects

The effect selection list has been reorganized listing the effects in the following order.

Effect 1	Effect 2
None	None
Filter	Filter
Equalizer	Equalizer
DJ Equalizer	DJ Equalizer
Phaser	Phaser
Flanger	Flanger
Chorus	Chorus
Spatializer	Spatializer
Comb filter	Comb filter
Compressor	Compressor
Lo-Fi	Lo-Fi
	Delay
	Plate reverb
	Spring reverb
	Dark reverb

Plate Reverb

The plate reverb has been expanded with two new controls. The mono switch has also been updated.



BAL (Balance) sets the balance between the left/right channel of the reverberated signal.

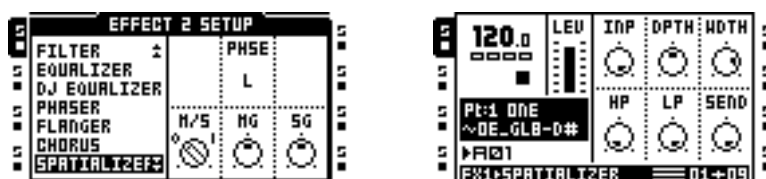
MONO continuously adjusts the width of the reverberated signal from stereo to mono.

MIXF (Mix function) defines the functionality of the mix control to be either mix or send.

Three new effects have been added:

Spatializer

The spatializer converts a mono signal to a stereo signal or widens the stereo image of a stereo signal.



PHSE (Phase) reverses the phase of the wet signal for: none of the channels (NONE), the left channel (L), the right channel (R) or both the left and right channel (L,R).

M/S (Mid/Side) activates the mid/side gain controls.

MG (Mid Gain) controls the amount of mid gain.

SG (Side Gain) controls the amount of side gain.

INP (Input Gain) adjusts the gain of the dry signal.

DPTH (Depth) sets the depth of the widened signal, works in conjunction with the width control.

WPTH (Width) sets the amount of stereo spread, works in conjunction with the depth control.

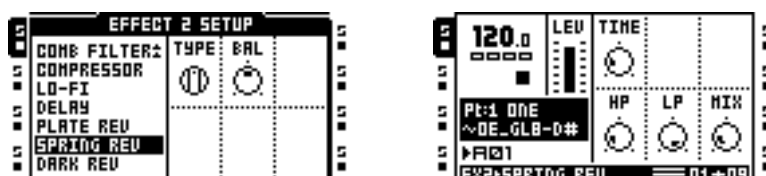
HP (High pass filter) controls the cut off frequency of the high pass filter for the widened signal.

LP (Low pass filter) controls the cut off frequency of the low pass filter for the widened signal.

SEND adjusts the level of the widened signal.

Spring Reverb

The spring reverb is an emulation of a classic triple spring mono reverb with extended tweakability.



TYPE (Type) sets the type of spring going from slightly transparent to more springy in three steps.

BAL sets the balance between the left/right channel of the reverberated signal.

TIME (Decay time) sets the decay time of the springs.

HP (High pass filter) controls the cut off frequency of the high pass filter of the springs.

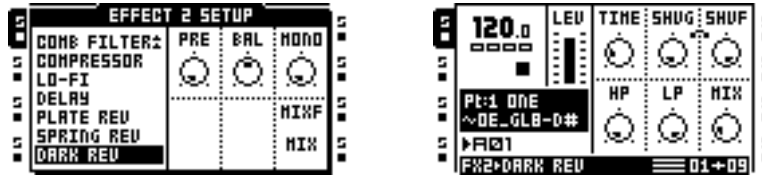
LP (Low pass filter) controls the cut off frequency of the low pass filter of the springs.

MIX adjusts the mix between the original dry signal and the reverberated signal.

Dark Reverb

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The dark reverb provides lush, wide stereo reverberation with long decay times.



PRE (Pre delay) adjusts the length of a short delay before the signal reaches the reverbator.

BAL (Balance) sets the balance between the left/right channel of the reverberated signal.

MONO continuously adjusts the width of the reverberated signal from stereo to mono.

MIXF (Mix function) defines the functionality of the mix control to be either mix or send.

TIME (Decay time) sets the decay time of the reverberated signal.

SHVF (Shelving frequency) controls the frequency of the shelving filter inside the reverbator. Together with the SHVG parameter it can be used to dampen the reverberated signal above a chosen frequency, making the reverberation sound darker.

SHVG (Shelving gain) affects the damping of the reverberated signal above the shelving frequency set by the SHVF parameter. At max value treble is included in the reverberations, lowering the value gradually dampens it.

HP (high pass filter) controls the cut off frequency of the high pass filter on the input to the reverb.

LP (low pass filter) controls the cut off frequency of the low pass filter on the input to the reverb.

MIX adjusts the mix between the original dry signal and the reverberated signal.

Bug fixes

Pickup monitoring did not work properly in MIDI mode. Fixed.

Playing tracks freely using the ONE2 or HOLD mode did not work. Fixed.

When not using dynamic recorder size, loading samples too large for the recorder slot could lead to sample memory corruption. Fixed.

Moving the arranger cursor didn't always work properly. Fixed.

Track trig quantization didn't work when master track and the individual tracks had different scale settings. Fixed.

Slice grids were not properly aligned to the trimmed start position in the sample editor. Fixed.

List of changes from Octatrack DPS-1 OS 1.21B to 1.22

Changes

The MIDI sequencer now supports live recording of the note length. Trigs are inserted into the pattern when Notes ON are received, and their lengths are parameter locked when Notes OFF are received.

The MIDI sequencer now locks velocity and note length via external MIDI keyboard in grid record mode. Also, the mechanism handling locking and unlocking of additional notes has been improved.

Improved sorting in file browsers. Filenames containing digits are now numerically sorted, i.e. 'file2.wav' now appears before 'file10.wav'.

Bug fixes

Track parameters were not always restored properly after previewing a sample of a different machine type, or when previewing samples in the file browser. Fixed.

Pickup multiply via MIDI was triggered both on note on and note off. Fixed.

The file manager rename function didn't check whether the new file/dir name already existed, sometimes resulting in duplicate filenames on the card. Fixed.

Playing 24 bit samples backward didn't sound correctly. Fixed.

MIDI arpeggiator octave range fixed in random mode.

Arpeggiator did not treat note offset 0 correctly, should have ignored it. Fixed.

List of changes from Octatrack DPS-1 OS 1.21 to 1.21B

Bug fixes

When starting recordings on pickup tracks via MIDI notes, all configured input sources were always used, regardless of which AB/CD/SRC3 MIDI note was sent. Fixed.

Non-pickup recorders could get confused when sending the MIDI Pickup play/stop command to them. Fixed.

Fixed problem with short samples being played backwards with length offset.

List of changes from Octatrack DPS-1 OS 1.2C to 1.21

Changes

Control messages added for triggering note on and note off on any key. Useful for external controllers that do not support sending midi notes.

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Control message added for requesting transmission of all audio CC values.

Hex	Dec	Control parameter
\$3B	59	Note On
\$3C	60	Note Off
\$3D	61	Send request, 0 = all audio CC

Bug fixes

Some projects would cause the octatrack to do an empty reset on each boot. Fixed.

MIDI notes for controlling sequencer (33, 34, 35) reacted on Note Off instead of Note On. Fixed.

When masterlength is set to INF, new arrangement rows had length set to 2. Now defaults to 64 instead.

List of changes from Octatrack DPS-1 OS 1.2B to 1.2C

Bug fixes

Compatibility issues with Transcend 400x Compact Flash Cards addressed.

The Octatrack would sometimes crash when loading Projects, exiting USB Mode or exiting the File Manager. Fixed.

Creating new projects and making an empty reset, recorders were initialized with timestretch OFF, and with strange BPM values. This could lead to unexpected results on recorder playback due to the absence of timestretch. Fixed.

List of changes from Octatrack DPS-1 OS 1.2 to 1.2B

Bug fixes

Sample editor could crash if opened while changing track to a THRU or NEIGHBOR track. Fixed.

Sample editor EDIT menus could be opened (and operations could be applied) on empty sample slots. Fixed.

There was a crackling sound while starting up Demo Mode. Fixed.

List of changes from Octatrack DPS-1 OS 1.11 to 1.2

Summary

- The Recorder has been expanded. ➡
- The Pickup machine, that adds looper functionality has been added. ➡

- Trigless locks are now available in the sequencer. ➡
- The Arranger now supports starting a pattern at any step. ➡
- The Audio editor has many new features. ➡
- A Metronome is available. ➡
- The LFO designer now has a randomizer.
- Project save/reload can now be done on individual banks.
- A few nasty bugs have been fixed. ➡

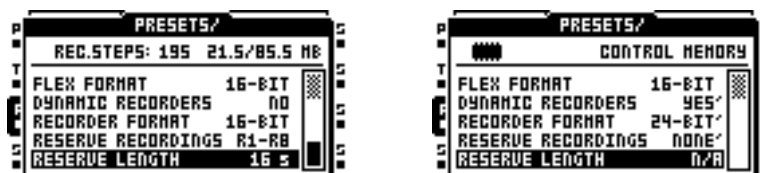
Updates

The Recorder

Sample/Recording Memory Management

In previous OS versions there was always memory reserved for one 16 second recording buffer per track. The recordings were always 16 bit. As of OS version 1.2, you may configure the amount of memory reserved for recordings, thereby altering the maximum recording length. It is possible to configure which tracks should have reserved recording buffers, as well as their lengths in seconds. The memory configuration is done on a per-project basis, so you can choose different setups for each project.

The sample RAM is shared between recording buffers and flex samples. This means that if you increase the size of the recording buffers, there is less memory available for flex samples. The amount of sample RAM (85.5 MB) ultimately limits the maximum length of your recording.



Enabling 24-bit recording consumes 50% more RAM than 16-bit, but is usually a good idea if you plan to perform overdubbing on your recordings.

Enabling "dynamic recorders" allows extending the recording buffer sizes beyond their reserved memory. This means that the length is extended dynamically while recording, as long as there is free RAM available.

Setting FLEX FORMAT to 24-BIT means that samples which are stored on card as 24 bits or more will be stored in RAM as 24-bit. Setting 16-BIT means that they will be converted to 16-bit when loaded to take up less space in RAM. Remember that if a sample is 16-bit in RAM, it will also be 16-bit if you save it back to card, regardless of it's original format on card. When trying to overwrite a sample with a different format, the overwrite warning dialog will show both the old and the new sample format to make sure user doesn't loose data unintentionally.



On the right side of the memory control menu there is a bar indicating how much of the total RAM is consumed by recording buffers. While altering this property, you'll also see it in numbers at the top of the menu. At the top of the bar you see how much memory your flex samples consume.

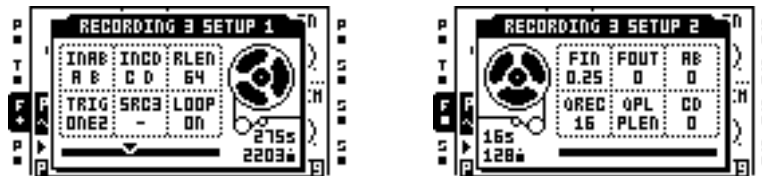
Changes do not come into effect until you exit the menu, where you will also be requested to confirm them. This is because the recording buffers are cleared when you make these changes and all the Flex samples reloaded.



The Recorder Setup

The Record Setup window has been extensively updated and is now divided into two separate pages, accessed by pressing **[FUNCTION]+[SETUP AB]** for page 1, and **[FUNCTION]+[SETUP CD]** for page 2. In the corner of the window (below the tape), the maximum recording length is presented in seconds and also in steps (taking into account the current tempo). This is the reserved memory for the track, together with free RAM if dynamic recorders are enabled.

Below the parameter grid is a position indicator bar. It represents the length (or projected length) of the recording buffer, and two arrows show record- and playback positions. The top arrow, pointing towards the bar, shows the recording position.



The parameters on Recording Setup page 1 are the same as in previous OS versions, but the parameters on page 2 are all new.

FIN and FOUT parameters control the length in steps of fade in and fade out of the recording volume. The fade out is applied after the recording length has been reached (or after a recording has been manually stopped), effectively extending the recording length by the chosen number of steps.

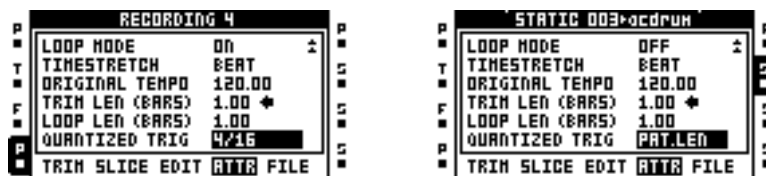
The QREC parameter sets the quantization of the start of a new recording, expressed in number of 16th note steps. Setting it to OFF means that manual recording is started immediately upon pressing the record buttons. By setting QREC to PLEN (Pattern Length) or a given number of steps,

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you can quantize the recording start to next time the pattern loops, or to an aligned position within the pattern. This is especially useful when sampling from internal sources (SRC3) while the sequencer is running, to align the recordings nicely without necessarily using record trigs.

The QPL parameter sets the playback quantization of the recording, expressed in 16th note steps. This attribute is also stored in the corresponding sample's slot, and determines the behavior of the sample (or the pickup machine) when triggered manually. By setting QPL to PLEN (Pattern length), or a given number of steps, a manually triggered pickup or sample will start playing back next time the pattern loops, or to an aligned position within the pattern, rather than immediately. This is useful when you want to manually trig pickups or samples (both flex and static) in sync with the sequencer.

On normal slots, both flex and static, the QPL parameter is found in the sample editor attributes page. On recordings, both the sample editor attribute and the Record setup QPL parameter change the same value.



The AB and CD parameters are specific to pickup tracks, and allow direct monitoring of the AB or CD inputs while being on the selected pickup track, running the sound thru the track effects.

Inside the recording setup pages, a context menu can be opened by pressing **[FUNCTION]+[EDIT]**. In this menu, you can quickly save the active recording (or all non-empty recordings) to the card. When saving the active recording, you will be asked whether you want to assign the saved sample to the recording itself, or to a free static/flex slot. When saving all recordings, the samples are assigned to the recorder slots automatically. For convenience, the menu also has shortcuts to the sample editor and to the memory configuration page.



Record Quick Mode

There is a new personal option available that enables record quick mode. This is a mode that allows you to start a normal recording simply by pressing **[REC AB/CD]** instead of pressing **[REC AB/CD]+[TRACK]**. This is convenient if you often find yourself wanting to use just a single finger to start a recording. When a Record Setup page is open, it is also possible to press **[MIDI]** to directly start recording SRC3.



The Pickup Machine

The Pickup Machine extends the Recorder with Looper functionality.

The Pickup Machine is not possible to sequence or parameter lock. The record sequencer may be used to start a Pickup recording selecting what sources to use. The Machine uses the settings from the record Setup pages, the monitoring signal AB and CD parameters on Setup page 2 being exclusively dedicated to the Pickup Machine.

The recording of the Pickup on track X is stored in Recorder memory X.

The pickup machine can only play its own recording buffer (unlike flex, where any track can play any recording buffer). Also, the playback and recording positions are connected (unlike flex, where recording and playback can take place at the same time in different parts of the sample). The recording always loops.

With pickup machines, you can record to the track which is currently active. Apart from just recording, the pickup machine can also perform overdubbing or replacing.

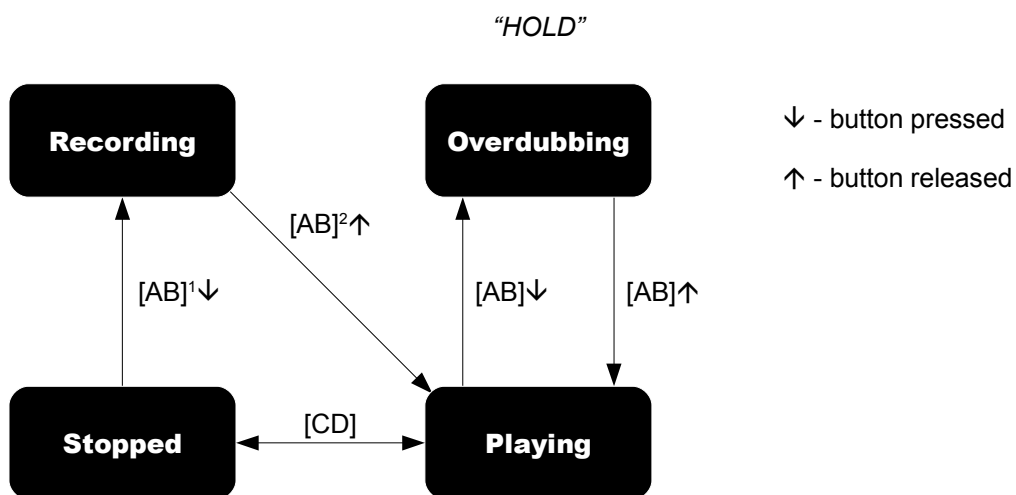
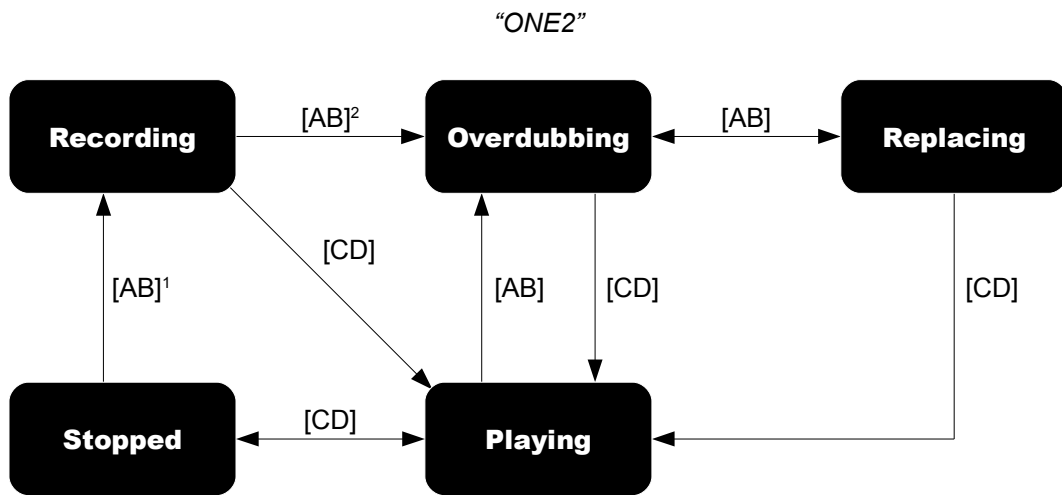
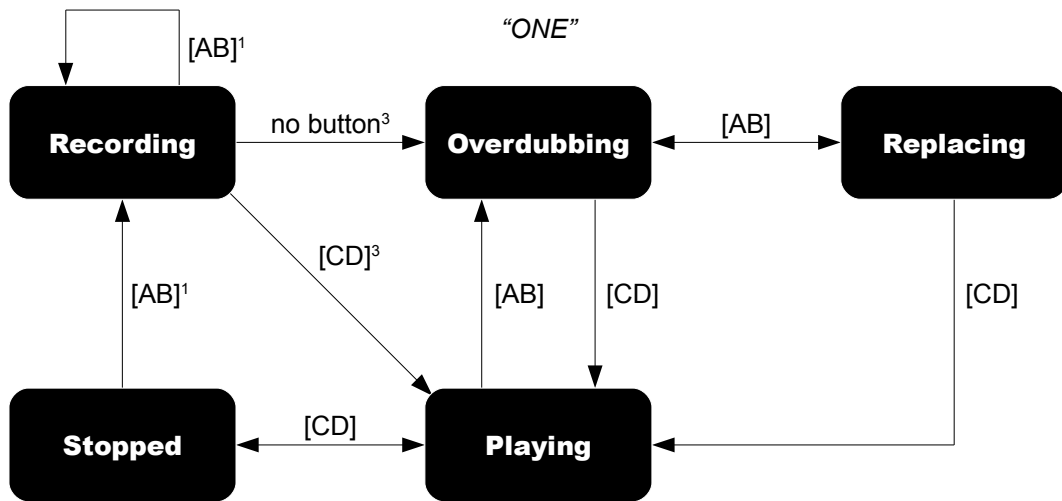
When a new loop is recorded, the OT changes its tempo to that of the loop. Loops can only be overdubbed when their tempo is the same as the global tempo, and pitch is set to zero.

The pickup machine is operated with the **[REC AB]** and **[REC CD]** keys. In this situation “AB” and “CD” are not related to physical inputs, they are just two keys that operate the pickup machine. It helps to think of **[REC AB]** as the record button, and **[REC CD]** as the play button. The operation of the pickup machine does however differ depending on the selected mode (ONE, ONE2 or HOLD).

When in ONE mode, you begin recording a new loop by pressing **[REC AB]**, given that the track is currently stopped. The loop length is decided by the **RLEN** parameter of the record setup window. If you press **[REC AB]** again, while still recording, the recording restarts (just like it does for normal recording in ONE mode). When the loop has been recorded the pickup will automatically begin overdubbing of the loop (unless **[REC CD]** was pressed during the record, in which case it will start playing the loop without overdubbing). You toggle between overdubbing and replacing using the **[REC AB]** key. To stop overdubbing (or replacing) press **[REC CD]**. This will not stop the playback of the loop, it only stops the recording. Toggle between stopped and playing using **[REC CD]**. To overdub again, just press **[REC AB]** while the loop is playing.

The ONE2 mode operation is very similar to the ONE mode. The difference is that you may actively define the loop length by pressing **[REC AB]** or **[REC CD]** after the recording has started. If you press **[REC AB]** overdubbing begins, and if you press **[REC CD]** playback begins. If you don't press one of the keys, the loop length is defined by **RLEN** and the pickup will start overdubbing when that length has been recorded.

In HOLD mode the recording is made by pressing and holding **[REC AB]**. When the key is released, the pickup will start playing the loop. To make overdubs, just press and hold **[REC AB]** again while the loop is playing. Replacing is not possible in this mode, but you can achieve the same results by setting **GAIN** to -INF.



¹⁾ The old recording is erased

²⁾ If the button is not pressed (or released), the transition will occur when the recording position has reached its designated length.

³⁾ The transition occurs when the recording position has reached its designated length.

The following picture shows the status icons that are used for different pickup states. They are (from the left) *stopped*, *playing*, *recording*, *overdubbing*, and *replacing*.



You can double a loop by pressing **[MIDI]** while in the record setup window, or by pressing **[TRACK] + [MIDI]** at any time. Note that this operation makes a copy of the loop at that specific moment, so it is recommended not to do this while overdubbing.



On the main screen, where you normally see active sample name, you see position and length information about the pickup. The format is position / length in sequencer steps.

There is also a small symbol indicating the currently selected recording trig mode. The following picture shows the three symbols. From the left: *one*, *one2*, and *hold*.



The Parameters of the Pickup Machine:

- **PITCH** adjusts the pitch of the sample. The max setting pitches the sample an octave up, a min setting pitches the sample an octave down. Integer changes are equivalent to semitones. Overdubbing and replacing is only possible when this parameter is set to zero.
- **DIR** controls playback and recording direction of the sample. It can record forwards, in a ping-pong fashion or backwards. If you record a new loop backwards, it will still be stored in forward in memory, but it will behave as if it was stored backwards.
- **GAIN** can either boost or attenuate the loop when overdubbing or replacing. The value is expressed in dB.
- **LEN** selects the length of the loop in relation to the reference loop length. This parameter is only used when you record a new loop. It also forces this pickup to be in phase with the reference loop. The reference loop is the length of the loop you recorded first. If you stop all pickup machines and record a new loop, this loop becomes the new reference.
- **OP** controls the overdubbing behavior. The default setting, DUB, means that the inputs are added to the loop when overdubbing. If GAIN is selected, the inputs are not added, but gain is still applied to the loop when overdubbing.

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The reference pickup is indicated with a small dash at the upper left of the 'P'-symbol. The pickups which are locked in phase and length to the reference are marked with small dashes at the lower left of the 'P' symbol. The following picture shows what the dashes looks like. Reference pickup to the left.



The Setup Parameters of the Pickup Machine:

- **TSTR** sets the master timestretch setting of the track. When set to AUTO the individual timestretch settings made in the audio editor will apply. Each sample of the track can then have its own timestretch setting. It is not possible to disable time stretch for pickup machines.
- **TSNS** adjusts the transient detection when the timestretch algorithm is set to BEAT. The higher the setting, the more transient sensitive the algorithm will be.

Synchronizing the Sequencer to Pickup Recording

The sequencer can be synchronized to the playback of a pickup recording. This is useful if you want to keep overdubbing, without the sequencer drifting away. Press **[TRACK]+[TEMPO]** to toggle between normal tempo and syncing to a pickup machine. When enabled, the main screen will show which pickup track is controlling the sequencer pace instead of the current BPM. The tempo window also shows that pickup sync is enabled (and also shows the effective BPM).



When starting the sequencer with the pickup sync mechanism enabled and the pickup machine already playing, the sequencer will start playing next time the pickup machine loops. If the pickup machine is not already playing, it will be started automatically together with the sequencer, and the sequencer will run at the exact pace of the pickup recording. If the sync mechanism is enabled while both the sequencer and the pickup recording are playing, sequencer will restart from the beginning of the pattern next time the pickup machine loops.

Trigless locks

A new trig type is available; the trigless lock. This trig type is very useful for parameter automation. Unlike the normal trig and the trigless trig, the trigless lock does not trig LFO- or FX-envelopes, regardless of the settings in AMP Setup page. It also does not reset unlocked parameters to their default values. Therefore, you can place trigless locks between normal trigs without worrying about unlocking any parameters that are locked on the normal trigs.

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It is not possible to slide parameters across trigless locks without locking the slid parameters also on the trigless lock. For example, if you slide the pitch of a sample between two trigs and want to automate the filter cutoff between these trigs by utilizing trigless locks, you need to lock the pitch changes also on the trigless locks in order to get the slide effect.

Trigless locks are shown as a dimmed green color in the grid edit mode.

An already existing trigless trig can be changed to a trigless lock by pressing **[GRID]+[EXIT/NO]**. Similarly, a normal trig can also be changed to a trigless trig using the same key combination.

To change a trigless lock to a trigless trig, use **[GRID]+[ENTER/YES]**. Note that it is not possible to change a trigless trig to a normal trig this way. To do this, just press the **[GRID]** key to enable the trig attribute.

When live recording parameter automation in the sequencer, trigless locks will now be placed instead of trigless trigs. Similarly, when using **[FUNCTION]+[GRID]** in grid edit mode, trigless locks will be placed instead of trigless trigs. Use the **[ENTER/YES]** key to upgrade any trigless locks to trigless trigs whenever you want to retrigger LFOs or FX-envelopes.

Live-record trigless trigs

On audio tracks, you can now live-record trigless trigs instead of trigs if you hold down **[FUNCTION]** while pressing the **[GRID]** keys in TRACKS trig mode or CHROMATIC trig mode. This is useful if you, for instance, want to use the chromatic trig mode to live-record pitch changes to a sample, but don't want the sample to restart on every pitch change.

The Arranger

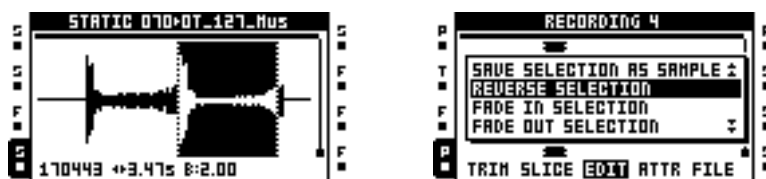
An offset parameter has been added to the arrangement rows. It defines at which step the sequencer starts playing the pattern.

ROW	PAT	REP	OF	LN	SCENE	T	M
000	A01			000	016		
001	A02			000	016		
002	A03			000	016		
003	A04			000	016		
004	LOOP:	001	/∞				
005	END	OF	ARR.				

The Audio Editor

Audio Editor Operations

A new page, EDIT, is available in the Audio Editor. On this page, you can apply offline operations to a flex sample. A sample span is selected using **[LEVEL ENCODER]** and **[ENCODER C]**, and operations are found in a menu opened by pressing **[ENTER/YES]** or **[FUNCTION]+[EDIT]**.



The available operations are:

- Select All - Resets the selection such that it spans the full sample.
- Crop To Selection - Removes all audio data outside the selection, and resets the trimming such that it spans the selected audio. Note that any slices located outside the selection section will be moved inside the selection prior to crop. A warning will pop up when this happens. To quickly crop the sample to the trimmed section, simply go from the TRIM page to the EDIT page, to inherit the trimmed selection before applying crop.
- Delete Selection - Can only be used at the start or at the end of the sample. Performs a crop operation such that all audio data inside the selection will be deleted.
- Save Selection as Sample - Saves the selected audio cut as a new sample. Format of the saved sample will be the same as that of the sample being edited. Useful for saving cuts or slices from a loop as individual samples.
- Reverse - Time reverses the selection.
- Fade In - Applies a linear fade in curve to the selection.
- Fade Out - Applies a linear fade out curve to the selection.
- Normalize - Normalizes the selection. This replaces the previously available "NORMALIZE" operation on the EDIT page. To mimic the old functionality you need to Select All and then apply normalize.
- Selection +3 dB - Amplifies the selection by 3 dB. Note that clipping may occur!
- Selection -3 dB - Attenuates the selection by 3 dB.
- Selection To Silence - Replaces the selection with silence. You can also press **[FUNCTION]+[CLEAR]** to perform this operation.
- Copy Sel - Marks a selection as the copy so that it can be pasted elsewhere. It is possible to copy/paste audio data from one flex sample to another. You can also press **[FUNCTION]+[COPY]** to perform this operation.
- Paste Sel - Pastes the copied selection to the cursor position. The length of the sample is never altered. Rather, the audio is either mixed into place or replaced, depending on the selected paste mode. Note that you cannot paste audio that overlaps with the copied data. This is because all operations are performed in-place rather than via a memory buffer. You can also press **[FUNCTION]+[PASTE]** to perform this operation.
- Duplicate Selection Forward - Duplicates the selected audio once (in forward direction) and moves the selection forward accordingly. The length of the sample is not altered. Rather, the audio is either mixed into place, or replaced, depending on the selected paste mode. Hence, the operation is similar to manually performing a copy/paste, but with a convenient auto-advancement that facilitates creation of stutter- or rolling effects.

- Duplicate Selection Backwards - Duplicates the selected audio once (in backwards direction) and moves the selection backwards accordingly. The length of the sample is not altered. Rather, the audio is either mixed into place, or replaces the destination, depending on the selected paste mode. Hence, the operation is similar to manually performing a copy/paste, but with a convenient auto-advancement that facilitates creation of stutter- or rolling effects.
- Change Paste Mode - Here you can choose how copy/paste and duplicate operations behave. Audio data can either be replaced, with an optional -6 dB attenuation. Audio can also be mixed in place, with full 0 dB amplitude of both original audio and new audio, or with optional -6 dB attenuation of both original audio and pasted audio.



- Rotate Pos To Start - Rotates the audio data such that the cursor position becomes the new start position in the sample.
- Mix Channels - Add or subtract stereo channels in the selection. Useful when you want to turn stereo into mono in certain sections of your sample, or when you want to remove (or keep) only the mono-mixed audio. There is also an option here to simply swap left and right channels.



- Invert Channel - Invert the polarity of one, or both of the stereo channels in the selection. Useful for out-of-phase stereo effects, or as a preprocessor for the Mix Channels operation (to remove stereo content and keep mono data).



- Calc BPM from Sel - Calculates the sample tempo from the selection by assuming that the selection contains a musical length, like 0.5 bars, 1 bar, 2 bars etc. Useful on complete tracks (both statics and flex) that are not perfectly cut as loops. Select 1 bar from a track and apply this operation to calculate the track BPM.
- Change Preview Mode - Here you can choose how the **[FUNCTION]+ [ENTER/YES]** preview function behaves on the EDIT page. Either the selection is played once, or looped until key combination is released.



- Change View - Changes between Left/Right/Stereo view in editor.

When working inside the TRIM or SLICE pages, the selected sample span from trim or from a highlighted slice is automatically copied over to the EDIT page. Therefore, to apply operations to a slice, you can simply select the slice on the SLICE page and then open the EDIT page to apply any operations. Similarly, to apply operations to the trimmed section, just go from the TRIM page to the EDIT page.

Any operations you apply to flex audio data are remembered only for the current session. If you reboot your machine, or load another project, all operations are lost. Therefore, it is important that you save your sample (either replacing the previous sample, or saving as a new sample) whenever you want to keep your altered sample data. The sample quick assign menu shows a blinking star on all flex slots that have been altered by offline operations, to indicate that they are unsaved.



Audio Editor File Page

The new FILE page in the sample editor replaces the old OPER page. All offline operations have been moved to the EDIT page, and the FILE page now only contains file operations. On static slots, the save sample operations are not available.



LOAD NEW SAMPLE will open the file browser dialog and allow you to replace the sample in the slot. Similar to replacing the sample from the sample quick-assign menu.

SAVE SAMPLE SETTINGS saves all the sample attributes in a separate file, together with the sample file. This function is unchanged from the previous operating system.

SAVE SAMPLE COPY will save the complete sample as a new file. Note that also audio outside the trim section is included. The previously available "SAVED TRIM AS NEW SAMPLE" is no longer available. Therefore, in order to save only the trimmed section, you need to use the CROP offline operation prior to saving the sample. Alternatively, you could use the "SAVE SELECTION AS SAMPLE" on the EDIT page if you prefer not to crop. This option is not available on static sample slots.

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SAVE AND ASSIGN SAMPLE also saves the complete sample, but also assigns the new sample, either to the same slot, or to a free static or flex slot. You can make this assignment choice after the sample file has been written successfully.



When saving a sample, any previous sample name will now be given as suggestion when naming the new sample. Both mono and stereo samples can be saved, in either 16 bit or 24 bit format, depending on the original sample format. Recorders/Pickups are always saved as stereo samples, and their bit depth depend on the project memory settings. Note that if you have chosen to load flex samples as 16 bit, a 24 bit sample might be saved as 16 bit if you choose to overwrite the original file. When trying to overwrite a sample with a different format, the overwrite warning dialog will show both the old and the new sample format to make sure user doesn't lose data unintentionally.



Saving a sample will now also save a sample settings file automatically. It is therefore no longer necessary to use the "SAVE SAMPLE SETTINGS" operation right after the "SAVE SAMPLE" operation to fully save all slot properties. This option is not available on static sample slots.

CLEAR SLOT clears the sample slot. This is similar to pressing **[FUNCTION] + [CLEAR]** on the slot from the sample quick-assign menu. On recorders, this is also available by pressing **[FUNCTION] + [CLEAR]** when the Recording Setup window is visible while not in grid recording mode.

REVERT TO SAVED FILE - Reloads the sample file, i.e. undoes all offline operations. Note that if you have cropped the sample, you might need to alter the sample BPM (or bars) again to reflect the new length after the reload operation. The sample trim will be reset to span the complete sample during this operation. Also note that, if a sample settings file exists for the sample, it will also be reloaded. Therefore, any unsaved sample attribute changes will be lost.

Audio Editor Attributes Page

The QUANTIZE TRIG attribute determines the behavior of the sample when triggered manually. By setting quantization to "PLEN", or a given number of steps, a manually triggered sample will start playing back next time the pattern loops, or when an aligned position within the pattern is reached, rather than immediately. To trig the sample immediately, set quantization to "DIRECT". This quantization is useful when you want to manually trig samples (both flex and static) or recordings / pickups in sync with the sequencer.



The LOOP MODE of a sample now has a new option available; "PINGPONG". When selected, a sample will loop by playing the looped section in reverse every other time it loops, so the playback position will never make a sudden jump during the loop phase.



Noise Gate

A new page, CONTROL INPUT, is available in the CONTROL menu. Here you can configure noise gates that cuts out any audio below a given threshold on the external inputs. Each input pair (AB and CD) has its own noise gate. Setting it to -INF means that the noise gate is inactive (passes all audio through).



An input delay compensation option is also available on the INPUT page. Enable this to automatically delay incoming audio so that it is aligned with internally processed audio. When using THRU effects and/or PICKUP machines together with DIRECT THRU audio, this option is necessary to avoid flanging and/or phasing effects from the parallel audio paths.

Metronome

A configurable metronome is now available. To quickly toggle the metronome on/off, press **[CUE]+[TEMPO]**. Note that the metronome will only sound while the sequencer is running.

In the CONTROL ► METRONOME menu, you can choose the time signature for the metronome. This signature will be used for your whole project. Additionally, you can select for how many bars the metronome shall pre-roll / count in before starting the sequencer. The pre-roll is only active when starting the sequencer in realtime recording mode (pressing **[REC]+[PLAY]**).

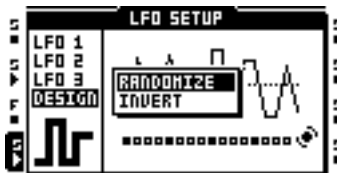


The volume settings allow you to set the metronome volume in the MAIN and CUE outputs. The tonal on/off setting chooses between a tonal metronome click, and a purely percussive click. The tonal click also has a pitch setting available.



LFO Designer Randomizer

In the LFO designer, you can now press **[FUNCTION]+[EDIT]** or **[ENTER/YES]** to show a context menu, from which you can randomize or invert the LFO designer curve.



Bank Save / Reload

Individual banks within the project can now be saved / reloaded individually, offering finer granularity in your workflow. To save or reload the active bank without affecting any other banks (or the project samples), use the new bank operations available in the project menu.



MIDI

Two pixels in the upper left corner of the screen are now used to indicate MIDI port activity. The left pixel blinks on any incoming MIDI messages, the right pixel blinks on any outgoing MIDI messages.

Song Position Pointer is now recognized and the Pattern or Arrangement position is moved accordingly when the sequencer is stopped or paused.

New Note assignments pertaining to the Pickup machine

Action	Note
Combo	C (60)
A-B	C# (61)
C-D	D (62)
SRC3	D# (63)
Play/Stop	E (64)
Multiply	F (65)
Toggle Mute on track	F# (66)
Toggle Cue on track	G (67)
Active Track up (autochannel only)	G# (68)
Active Track down (autochannel only)	A (69)
Toggle seq sync to pickup on active track	A# (70)
Enable seq sync to pickup on active track and start sequencer	B (71)

New Control messages pertaining to the Pickup machine

Hex	Dec	Control parameter
\$39	57	Pickup SRC AB level
\$3A	58	Pickup SRC CD level

New Note assignments pertaining to the Sequencer

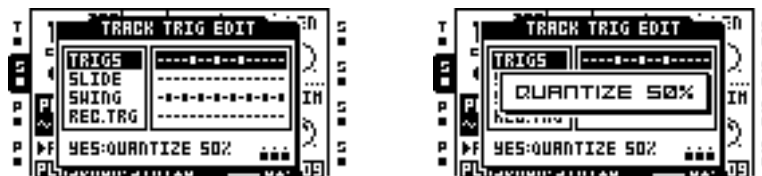
Action	Note
Sequencer Stop	A (33)
Toggle Sequencer Start/Stop	A# (34)
Sequencer Start/Restart	B (35)

General

The effects now default to dry mix.

Quantization of micro-timing

In the track trig edit menu, key **[ENTER/YES]** can be used to quantize trigs to approximately 50 percent of their original micro-timing value. Use this operation when you want to tighten up the track, but not fully quantize it. Use the operation 6 times in a row to fully clear the micro-timing.



Short Sample Name Generation

When the Octatrack loads samples into the static and flex slots, it generates a short sample name with max 10 characters. Previously, this name was always a combination of the 5 first and the 5 last characters in the sample file name. There is now a PERSONALIZE option for choosing how

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these names are generated. The legacy setting "BEG+END" is default, but you can also choose "BEG ONLY", to use the 10 first characters, or "END ONLY" to use the 10 last characters.



In the sample quick-assign menu, you can now see the complete file name of the selected slot, regardless of its length. The file name is scrolled back and forth as long as the slot is selected.



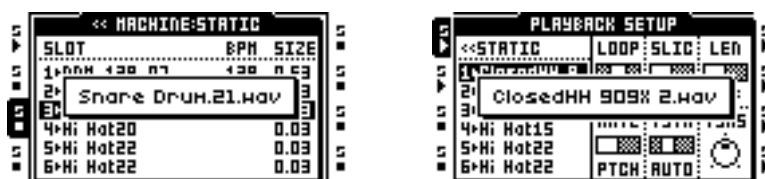
File Browser changes

The file browser that is used to load and replace samples has been slightly improved. A solid selection rectangle now highlights the file that was previously loaded in the slot, if any. This helps you avoid loading the same sample again by mistake. Pressing **[ENTER/YES]** on a file immediately loads the file into the slot (similarly to older OS:es). However, the file browser is not closed until the **[ENTER/YES]** button is released. While still holding down **[ENTER/YES]** you can use the **[UP/DOWN]** arrows to instantly load next or previous file in the directory instead, without having to re-open the file browser for each file.



Another way to immediately load next or previous sample in the directory is to press **[FUNCTION]+[LEFT/RIGHT]**. This is available not only inside the file browser itself, but also directly in the sample quick-assign menu, and in the playback setup slot menu. The new sample file name will be shown in a pop up window for a short period of time each time you change sample. The function is convenient when you quickly want to try many different samples from the same folder in your slot, without opening and closing the file browser for each sample you want to try. Note that your sample attributes will be re-initialized just like when you load a sample manually.

Filenames whose length exceed the filebrowser width will now be scrolled back and forth while under the cursor position, similar to how long sample filenames are scrolled when selected in the sample quick assign menu.



Tempo Calculations

The tempo guessing algorithm now analyzes the sample file name for tempo figures, to see if the initial guess is off by a factor 0.5 or 2.0. Typically, a 70 BPM loop is initially loaded as 140 BPM loop, but if the word '70' is found anywhere in the file name, the Octatrack will now use 70 BPM instead. Similarly, if 280 is found in the file name, it will use 280 BPM instead. Normally, the BPM range that Octatrack uses to make its initial guess is 85 BPM - 170 BPM. If you have loops with tempos outside this range, it might be a good idea to put the BPM in the file name.

Bug fixes

When loading projects, or when exiting USB mode or File Manager, samples that had Bars as timing source (rather than BPM) would show 120BPM instead of their actual BPM in the sample slot list until sample editor was opened. Fixed.

The DJ Equalizer had a small bump in the frequency response. Fixed.

When assigning scenes to scene A/B, the track- and page-LEDs weren't immediately updated to indicate where scene locks are located. Fixed.

When manually triggering samples on more than one track at once from the grid keys, the notes could sometimes get stuck. Fixed.

The waveform display in sample editor would sometimes distort the waveforms while panning and zooming certain sections of a sample. Fixed.

When trimming a sample very short, number of bars could temporarily be set to 0.00 by the TRIM page in audio editor. Fixed.

When trimming a sample after having changed number of bars without closing the sample editor in between, the number of bars could change in an unexpected way. Fixed.

Neighbor tracks would not always trig automatically together with the track they are neighbored to.

Direct monitoring of the inputs was too low when in Master mode. Fixed.

When loading projects with missing bank files, the missing bank files were not saved to card on next card sync unless the banks had been modified. Fixed.

Parameter locked midi note offsets were not presented correctly when a trigmode other than TRACKS was active. Fixed.

When locking two midi note offsets to the same value, the graphical keyboard didn't show the locks correctly. Fixed.

Pattern trig quantization length 184/16 has been changed to 192/16.

Quantized track trig didn't work properly when using quantization of 1/16. Fixed.

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Many other fixes.

List of changes from Octatrack DPS-1 OS 1.11 to 1.11B

Bug fixes

Sometimes when chaining patterns, sample trigs could be lost. Fixed.

List of changes from Octatrack DPS-1 OS 1.1B to 1.11

Updates

The Bootstrap has been upgraded to version C, with tweaks to diagnostic testing. The upgrade will be performed right after restarting the Octatrack, nothing to worry about, but please, *do not turn the power off during the upgrade.*

Greatly improved performance when using USB DISK MODE, especially when writing files to the card.

FORMAT CARD has been optimized for higher performance, at a small loss of available disk space. For cards larger than 2 GB the size of the data clusters will now always be 32 kB.

It is now possible to preview samples to main out also on muted tracks.

MIDI CCs and Sample Trigs (MIDI notes 36-47) received on the MIDI channel of the currently selected audio track will now also be recorded when in live recording mode, in addition to CCs and trigs received on the auto channel.

The MIDI Bank Change message (CC #0) message is now handled the same way as Program Change. When setting a specific MIDI channel for program change (assigned in the MIDI CHANNEL SETUP menu) Bank Change messages received on that channel will be treated as a Bank Change regardless of whether that MIDI channel is used by AUDIO or MIDI tracks.

Muting a MIDI track in the arranger editor now completely disables MIDI from that track including the LFO's giving full control to other tracks sharing the same MIDI channel.

Bug fixes

Long samples would in some rare scenarios stop playing prematurely when using time stretch mode 'beats'. Fixed.

The CREATE RANDOM LOCKS function in the Slice editor would only use slices 1-16, regardless of the actual slice count. Fixed.

The Octatrack could crash when trying to trig freely playing tracks just before END or HALT inside an arrangement. Fixed.

The LFO AUTO CHANGE setting wasn't properly saved within the project. Fixed.

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USB DISK MODE didn't work for certain types of old low end Compact Flash cards. Also, the card status LED did not work for these cards. Fixed.

Various file system improvements and fixes.

MIDI sequencer locks couldn't be placed from external MIDI sources when CC DIRECT CONNECT was enabled. Fixed.

After Touch and Pitch Bend passthrough of messages received from external MIDI sources would not work if the machine was in audio mode and the selected audio track matched that of the receiving MIDI track. Fixed.

MIDI CCs received on MIDI channels belonging to audio tracks didn't work or didn't work correctly when MIDI mode was active. Fixed.

Realtime Recording trigs at a high pace or overdubbing existing trigs could sometimes place parameter locks at the wrong step. Fixed.

Realtime Recording, via the auto channel or trig modes, to MIDI tracks that didn't have any assigned MIDI channel didn't work. Fixed.

List of changes from Octatrack DPS-1 OS 1.1 to 1.1B

Bug fixes

Arrangements starting with an infinite loop would hang the Octatrack. Fixed.

Arrangement chains did not work properly. Fixed.

When entering the Arranger, tempo could rush to 300 bpm. Fixed.

When adding a pattern with infinite length to an arrangement the row length would be set to 65535 steps. Fixed.

Saving files to a full Compact Flash card could result in file structure corruption. Fixed.

List of changes from Octatrack DPS-1 OS 1.03B to 1.1

Updates

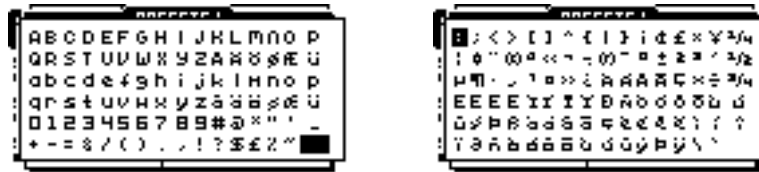
General

Copy/paste/clear of parameter pages. Press **[PAGE]+[COPY]/[CLEAR]/[PASTE]** to access these functions. Clear will initialize the page parameters to default values. An effect page copy can be pasted either to Effect 1 or Effect 2 page. Press each key combination again to undo the operation.

New fonts with both upper case, lower case and many non-English characters and symbols added. This improves file browsing and naming.



When naming projects, sets and samples you now have a large set of characters to choose from, including lower-case and non-English characters. The large character set is divided into two full pages in the pop up window.



A slightly more limited char set is available when naming parts and arrangements, but there are still some non-English chars in there as well.



Naming window now shows the index of the selected character in the lower right corner. Very long names can be scrolled horizontally. To simplify erasing characters and copying/clearing/pasting names, without having to show the character set pop up window, you can use **[CUE]** instead of **[FUNCTION]** together with **[EXIT/NO]** or **[COPY]/[CLEAR]/[PASTE]**.

Improved erase functionality during live record. Holding down **[EXIT/NO]** no longer erases trigs on the playback position on the active track. Instead press **[EXIT/NO]+[TRACK]** to erase trigs from one or more tracks simultaneously, regardless which track is currently active. Pressing **[FUNCTION]+[EXIT/NO]** still erases all parameter locks on the playback position on the active track, but it no longer erases locked sample slots. Instead use **[EXIT/NO]+[LEVEL ENCODER]** to erase locked sample slots. Similarly, you can use **[EXIT/NO]+[ENCODER]** to remove parameter locks for any specific parameter.

Amp setup page is now available also on master track, but with a reduced set of parameters to control the behavior of envelopes on effect pages.

Trig Modes

A number of *trig modes* have been implemented to facilitate different tasks in the Octatrack user interface. The trig modes control the operation of the **[TRIG]** keys to enable specific tasks. There are 6 trig modes: TRACKS, CHROMATIC, SLOTS, SLICES, QUICK MUTE and DELAY CONTROL. To change the active trig mode, use **[FUNCTION] + [UP]/[DOWN]** to open the trig mode selection menu. Each trig mode has its own symbol which is visible in the selection menu, as well as in the

main screen. All trig modes (except TRACKS) have their own GUI residing on the main screen, as well as LED feedback alongside the trig keys.

In arrangement mode the on-screen GUI for trig modes is not available, also the active trig mode icon is smaller and positioned to the left of the arrangement name.



TRACKS is the normal mode of operation, where each **[TRIG]** key controls the triggering of tracks. In this mode, the Octatrack behaves exactly like it did before the introduction of trig modes.

CHROMATIC enables easy chromatic playback of a sample. When a sample is triggered in this mode, the playback pitch parameter is temporarily locked to a semitone in the range -12 to +12. The **[TRIG]** keys and the **[SCALE]** key together make up a small 17-key keyboard. The current octave is displayed to the left of the on-screen keyboard. Use **[FUNCTION] + [LEFT]/[RIGHT]** to change the current octave. The <TRIG> LEDs are lit to make identifying keys easier: C is yellow, other white keys are red, and black keys are unlit. In MIDI mode, the chromatic trig mode sends note on/off commands on the active MIDI track channel. It is possible to live-record your performance in this mode.



SLOTS is a way to get quick access to all the slots of the machine type enabled on the current track. By pressing a **[TRIG]** key in this mode, you trigger a specific sample slot for the currently selected track. The slots are divided into 8 pages of 16 each, which can be toggled using the **[SCALE]** key. On the screen you can see which page is currently active, as well as which slots on the page currently have samples assigned to them. It is possible to live-record your performance in this mode.



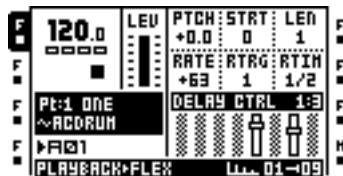
SLICES is used to trigger different slices for the currently selected track sample. The slices are divided into 4 pages of 16 each. Use **[SCALE]** to toggle between pages. When slice mode is not active, this mode triggers the selected sample with **STRT** values in the range 0--127 in steps of 2. It is possible to live-record your performance in this mode.



QUICK MUTE operates like the mute settings in the mixer menu. The left 8 grid keys (red) mutes the audio tracks, and the right 8 grid keys mutes the midi tracks (yellow). If you hold **[FUNCTION]** while toggling the mute settings for different tracks, the settings will not come into effect until you release **[FUNCTION]**.



DELAY CONTROL is a mode where you can quickly set delay **TIME** parameters for multiple tracks simultaneously. You select the tracks you want to affect by pressing one or more of the **[TRIG]** keys I--P. Only tracks that have delay enabled can be selected, and these trig keys are indicated with green <TRIG> LEDs. The **TIME** setting you wish to apply to the selected tracks is applied by pressing one of the **[TRIG]** keys A--H. The **[SCALE]** key toggles between two different time parameter scales. The normal mode is "1:2", where **TIME** is set to 1, 2, 4, 8, ..., 128. A second mode, "1:3", is also available where **TIME** is set to 1, 3, 6, 12, ..., 96, 128. In addition to setting **TIME**, a second parameter is set depending on the current **LOCK** setting. If **LOCK** is enabled for the delay **SEND** is set to 0. If **LOCK** is disabled **VOL** is set to 127.

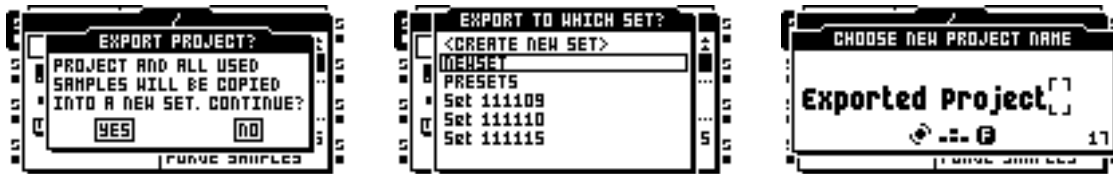


Project Menu

The project options RESTORE BACKUP and STORE BACKUP have been renamed RELOAD and SAVE. It has been renamed to accentuate that your working copy, although non volatile, is not the saved version. If you are satisfied with your project and want to keep it you should save it using SAVE.

A new project operation, EXPORT TO SET, is available in the project menu. This allows you to export the currently active project into a different set. All samples used from the Audio Pool of the active set will be merged into the Audio Pool of the destination set. If you want to send a project to a friend, a convenient way of doing this is to export the project into a new, empty set, and then simply compress that set into a zip file on your computer. This will produce a self-contained set containing only your project of interest, and an audio pool reduced to the very minimum required by your project. Note that it might also be a good idea to Purge Samples before exporting if to remove unused samples from your project and hence further minimize the audio pool of the new set. Also note that the original project will be saved prior to export, and as a result of this, both the

working copy and the saved state of the project will be identical. Hence, if you'd rather export the saved state of the project, please use the RELOAD function prior to exporting. Warning, this will overwrite the current working copy.



A new project operation, COLLECT SAMPLES, is available in the project menu. This copies all samples that are used by the current project into the project directory, effectively disconnecting the current project from the audio pool (and from other projects in case you use samples located in other projects' folders). When the operation is completed, it is safe to manually copy the project folder into any other set on your Octatrack, since it is no longer dependent on any audio pool.



The new menu MIDI CONTROL SETUP contains the following settings:

AUDIO CC IN controls whether the audio tracks react to MIDI Control Change messages.

AUDIO CC OUT controls whether the encoders control parameters internally (INT), sends MIDI Control Change (EXT), or both (INT+EXT).

AUDIO NOTE IN controls whether incoming MIDI notes can trig the audio tracks.

AUDIO NOTE OFF controls whether pressing keys on the Octatrack controls internal trigs (INT), are sent on MIDI as note messages (EXT), or both (INT+EXT).

In the MIDI SYNC SETUP menu, you can now set which MIDI channels should be used for transmitting and receiving program change messages. Choosing AUTO as send channel will result in program change messages being sent on the first MIDI channel used by the audio tracks and NOT used by any of the MIDI tracks. When setting a specific MIDI Channel, program change will be transmitted on that MIDI channel, regardless of whether the MIDI channel is used by AUDIO or MIDI tracks.

Choosing AUTO as receive channel means Octatrack will listen for program change messages on any of the MIDI channels assigned to the audio tracks. While not inside MIDI mode, the MIDI AUTO Channel (assigned in the MIDI CHANNEL SETUP menu) can also be used to receive program change. When setting a specific MIDI Channel, program change will be received only on that channel, regardless of whether that MIDI channel is used by AUDIO or MIDI tracks.

A Project menu MIDI TURBO STATUS has been added. Here, Turbo Mode may be negotiated between Elektron gear.



A new personalization option, DIS. STOP-STOP ARM is available. When checked, the Octatrack will no longer arm oneshot trigs when pressing stop twice in stop mode.



A new personalization option, DIS. PAGE AUTOCOPY is available. When checked, the Octatrack will no longer auto copy existing trigs when extending the length of a track.

In the list of projects, **[FUNCTION]+[EDIT]** now shows a small context menu that allows you to rename or delete the selected project.



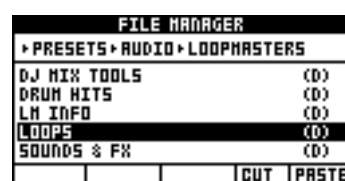
Selecting **SYSTEM ▶ CARD TOOL ▶ FORMAT CARD** lets you format your Compact Flash card. You may format cards up to 64GB. Warning! All information will be irrecoverably lost. Any previous partitions will be gone.

Selecting **SYSTEM ▶ CARD TOOL ▶ FILE MANAGER** enters a new dedicated File Manager mode, where you can perform many different file operations, previously only available via a computer. Please be very careful not to delete or move files and samples used by your projects.

Note that, when entering the File Manager mode, playback will be stopped and your project will be synced to card. This is similar to happens when entering the USB Disk Mode.

Use the five **[PAGE]** keys to access different file operations. Holding **[FUNCTION]** key reveals additional operations.

You have two different workspaces available, to quickly jump between inside the file manager. Use any of the first four **[TRACK]** keys, **[T1]-[T4]** to go to first workspace. Use **[T5]-[T8]** to go to second workspace. Workspaces are convenient to use as bookmarks when copying files between two different locations on the card.



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A new project menu, SYSTEM STATUS has been added. Here you can see your OS version, battery status and how much space you've used on your card.



MIDI

The MIDI control change messages have been extended. The audio channels respond to MIDI control change according to the following table. In MIDI mode the autochannel also reacts to \$36, \$37, \$38 and \$70-\$7F if CC DIRECT CONNECT is set to off.

Hex	Dec	Control parameter
\$07	7	Track level
\$08	8	Track balance
		...
\$10	16	Playback param #1
\$11	17	Playback param #2
\$12	18	Playback param #3
\$13	19	Playback param #4
\$14	20	Playback param #5
\$15	21	Playback param #6
\$16	22	Amp param #1 (Attack)
\$17	23	Amp param #2 (Hold)
\$18	24	Amp param #3 (Release)
\$19	25	Amp param #4 (Volume)
\$1A	26	Amp param #5 (Balance)
\$1B	27	Amp param #6 (N/A)
\$1C	28	LFO param #1 (Speed 1)
\$1D	29	LFO param #2 (Speed 2)
\$1E	30	LFO param #3 (Speed 3)
\$1F	31	LFO param #4 (Depth 1)
\$20	32	LFO param #5 (Depth 2)
\$21	33	LFO param #6 (Depth 3)
\$22	34	Effect 1 param #1
\$23	35	Effect 1 param #2
\$24	36	Effect 1 param #3
\$25	37	Effect 1 param #4
\$26	38	Effect 1 param #5
\$27	39	Effect 1 param #6
\$28	40	Effect 2 param #1
\$29	41	Effect 2 param #2
\$2A	42	Effect 2 param #3
\$2B	43	Effect 2 param #4
\$2C	44	Effect 2 param #5
\$2D	45	Effect 2 param #6
\$2E	46	Track level
\$2F	47	Cue level
\$30	48	Crossfader
\$31	49	Track Mute (0 Unmuted, [1..127] Muted)
\$32	50	Track Solo (0 No solo, [1..127] Soloed)
\$33	51	Track Cue (0 Not Cued, [1..127] Cued)
\$34	52	Track Arm (0 Disarm, [1..127] Arm)
\$35	53	Recorder Arm (0 Disarm, [1..127] Arm)
\$36	54	All Arm (0 Disarm, [1..127] Arm)
\$37	55	Scene A Select
\$38	56	Scene B Select

Hex	Dec	Control parameter
\$70	112	MIDI Track 1 Mute (0 Unmuted, [1..127] Muted)
⋮		
\$77	119	Midi Track 8 Mute (0 Unmuted, [1..127] Muted)
\$78	120	MIDI Track 1 Solo (0 Not solo, [1..127] Soloed)
⋮		
\$7F	127	Midi Track 8 Solo (0 Not solo, [1..127] Soloed)

Sequencer

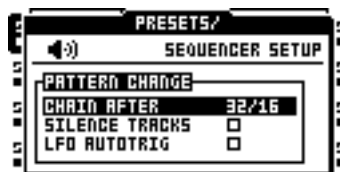
When scale length is increased on a pattern that contains no trigs on the upper pages, the trigs on the lower pages are now copied automatically to the upper pages. This allows you to quickly increase the length of a pattern while it's playing, without necessarily introducing silence or unaffected sound on the new pages.

In the per-track scale mode, you can now set the master length to INF. This will prevent the pattern from ever restarting the tracks. Note that you will want to use PATTERN CHAIN AFTER when using pattern chaining or the sequencer will never move on to the next pattern.



It is now possible to use **[FUNCTION]** to snap to multiples of 16 when setting the master length in SCALE SETUP.

A new project sequencer setting, PATTERN CHAIN AFTER is available. This allows you to choose how pattern chaining works per default inside your project. The classic mode here is to chain when each pattern has played to its length (PAT.LEN). However, if you use a very long (or infinite) master length in your project, it might be more convenient to chain after, say 16 steps instead of waiting until the master length has reset the pattern.



There is also a new pattern setting that allows you to override this policy on a per-pattern basis. Unchecking the USE PRJ SET. box will override the project setting.

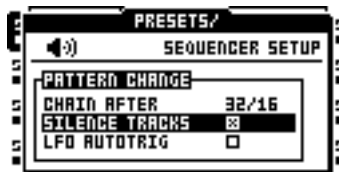


When locking a sample slot to a sequencer step, the selection window is opened when *LEVEL* is turned. You no longer have to use the arrow keys to open the window.

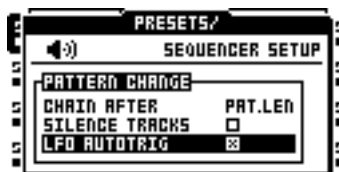
A new track setting, TRIG QUANT, is available in the pattern settings menu when the track is set to play free. This allows you to quantize the trig of a track to either the track length, or to a specified number of steps.



A new project setting, SILENCE TRACKS is available. When set, all tracks are automatically silenced when changing to a pattern with a different part. When not set, samples from the previous pattern / part will continue to play until a new trig occurs on the track.



A new project setting, LFO AUTO CHANGE is available. When set, all LFOs on the track will automatically start when changing to a pattern with a different part. When not set, LFOs on from the previous part will continue until a new trig occurs on the track.



New LFO trig modes have been added and can be accessed in the LFO SETUP menu using the *D* encoder. The modes are SYNC, SYNC ONE and SYNC HALF, restarting the LFO on Track start, playing either continuously, one period och half a period.

MIDI Sequencer

The option CC DIRECT CONNECT is available in the new MIDI SEQUENCER SETUP menu. When CC DIRECT CONNECT is selected, MIDI Control Change messages sent on the Auto Channel (or the MIDI channel of the currently selected track) will be sent straight to the MIDI Output and if it is

one of the messages selected in the CTRL 1 or CTRL 2 setup pages the Octatrack parameter will be appropriately updated and if in Realtime recording mode, it will be recorded.



When CC DIRECT CONNECT is not selected, the Octatrack listens to the MIDI Control Change messages 36--45 on the Auto channel and remaps them to the Control change messages selected in the CTRL 1 and CTRL 2 setup pages.

Messages received on the MIDI channel of the currently selected track always behave as when CC DIRECT CONNECT is selected.

Note that only the currently selected track parameters are recorded in Realtime recording mode.

By pressing **[FUNCTION]+[ENCODER A--F]** in the CTRL 1 or CTRL 2 parameter setup pages you enter MIDI CC learn mode. The next Control Change message sent on the Auto Channel or the MIDI channel of the currently selected track will be assigned to the selected Octatrack parameter.



Audio Editor

Each sample slot now has a GAIN attribute, allowing you to amplify or attenuate each individual sample without affecting any track parameters or locks. On recorders, the sample gain is set to +12 dB per default to compensate the attenuation caused by headroom when they are replayed.



A new sample operation, SAVE SAMPLE SETTINGS, is available on both flex and static samples. This operation saves all attributes, the trim settings as well as all the slices to a settings file along with the sample in the audio pool (or wherever the sample is located). Next time the sample is loaded into a slot, be it within the same project or within another project, these settings will be loaded automatically. Hence, it is useful for saving "default" settings for a sample, or for slicing a sample once and for all instead of each time you load it. Note that you can still change all the settings once the sample has been loaded, without necessarily affecting the stored sample settings.



Holding **[FUNCTION]** while moving start/end/loop markers in TRIM or SLICE sample editor now performs zero-cross search also on static samples. This was previously only available on flex samples. Note that on very large statics, there might be a short delay before the zero-cross search is completed and aligns the marker.

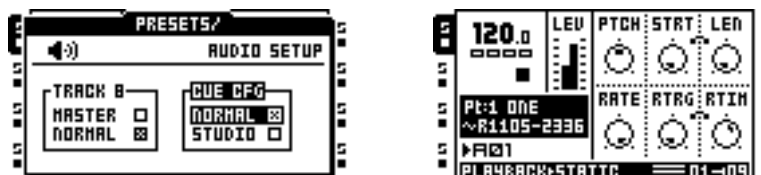
The CREATE SLICE GRID operation inside the sample slice editor can now auto-align the start and endpoints of each slice to zero-crossings in the sample data. A dialog box asking whether zero-cross alignment shall be enabled appears each time a new grid is created.



Sample editor no longer performs zero-cross search while holding down **[FUNCTION]** and previewing. Previously caused some trouble when trying to perform fine adjustments to loop/end points while previewing.

Audio

In the CTRL ► AUDIO SETUP menu, you can now choose if your project shall use the CUE outputs normally, or if in your project shall use them as a second pair of outputs. This new mode is called STUDIO. When selected, it is no longer possible to CUE tracks in your project. Instead, each track gets two independent volume levels; one for MAIN out and one for CUE out. Muting a track in studio mode will mute the sound from both CUE and MAIN outs.



On recorders, the sample gain is set to +12 dB per default to compensate the attenuation caused by headroom when they are replayed.

A new personalization option, PREVIEW WITHOUT FX is now available. When checked, all audio preview (of both files and slots) takes place with Effect 1 and Effect 2 pages temporarily disabled.



The Plate reverb has been polished a bit and the setup parameter **MONO** has been added which turns off the stereo width of the reverberation tail.

The Delay low and high pass filters have been slightly adjusted to minimize decay during infinite repeat.

A comb filter effect has been introduced. The following parameters are available:

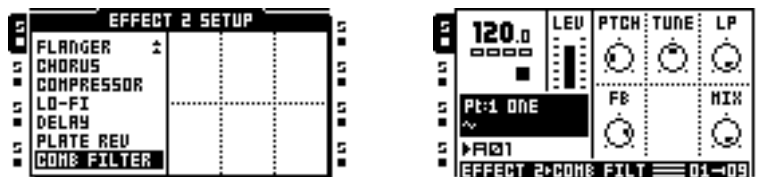
PTCH (pitch) controls the resonance frequency of the comb filter.

TUNE changes the pitch by up to 2 semitones up or down.

LP controls the cutoff frequency of an lowpass filter in the feedback signal.

FB controls the gain of the feedback signal.

MIX controls the dry/wet signal mix.



Tempo nudge per sample has been implemented. Hold one or more **[TRACK]** keys and press **[LEFT]/[RIGHT]** to nudge the tempo of the samples currently playing on those tracks. Note that this does not affect the sequencer tempo.

Bug fixes

Negotiating Turbo Modes x2 and x3.3 did not work properly. Fixed.

Sometimes the sample retrigger triggered too many times. Fixed.

In MIDI ARP SETUP the key was incorrectly labeled for the major keys. Fixed.

The Octatrack sent MIDI realtime Start when it should send Continue. Fixed.

When stopping inside an Arrangement, MIDI Song Pointer Position was not updated to reflect the new start point at the beginning of the pattern of the row. Fixed.

Scenes containing nothing but locks on mixer inputs would appear empty. Fixed

Going from one pattern to another pattern in a different bank could, depending on the scale settings, in some rare cases miss the first trigs in the new pattern. Fixed.

When opening the audio editor via sample list in playback setup menu, slices couldn't be previewed properly. Fixed.

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Using CUE+YES in main screen would temporarily toggle CUE on the active track (as if something was about to be previewed). Fixed.

Previewing a static with slices on a flex track sometimes did not work as expected. Fixed.

The very first slice in a sample couldn't be modified while being previewed. Fixed.

Some operations (like file browser auto-scrolling when replacing samples) were sensitive to letter case in filenames and paths, although the file loader is not. Fixed.

When receiving MIDI clock during the Octatrack intro, it could sometimes be problematic syncing to external clock if the sequencer was started immediately after the intro. Fixed.

List of changes from Octatrack DPS-1 OS 1.03 to 1.03B

Updates

Enhancements to the FAT file system. Upgrading is recommended.

Faster detection of MIDI clock sync loss prevents tempo artifacts when the clock resumes. When losing sync the internal tempo is set to the calculated external tempo.

Bug fixes

Fix for CPU overload when constantly retriggering samples while moving the startpoint.

Tap tempo was broken during incoming MIDI clock (even though not syncing to it). Fixed.

Setting MIDI Auto Channel to "OFF" would result in MIDI Auto Channel being set back to "1" next time project was loaded. Fixed.

List of changes from Octatrack DPS-1 OS 1.02 to 1.03

Updates

Static machines can now read 24 bit samples.

24 bit samples can now be previewed in file browser.

Loop points can now be set in static samples (both in TRIM and inside SLICES).

Improved time stretch external clock tracking.

Bug fixes

The Octatrack would sometimes hang during viewing large static files. Fixed.

A click occurred when setting delay feedback to 127. Fixed.

A bug hindering scrolling in the Arranger editor when another menu is on top has been fixed.

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Entering or leaving Arranger mode while playing now works seamlessly.

Playback position cursor in sample editor could sometimes be slightly off on certain static samples. Fixed.

On certain samples, the Octatrack would guess strange BPM values. This has been improved.

The MIDI channels were not correctly displayed on the right side of the screen. Fixed.

List of changes from Octatrack DPS-1 OS 1.01B to 1.02

Updates

Scale settings are now only reset when doing a pattern clear.

Unquantized live recordings can now be made, the Octatrack will try to fit the notes as well as possible. This is enabled by setting "Quantize live rec" to 'no' in the Personalize settings.

Syncing changes to card when switching banks is now delayed until the sequencer is stopped. This is due to some Compact Flash cards sometimes stalling the write operation until a streaming audio dropout occurs. The Card status LED will be yellow indicating that a delayed write is waiting.

When transport send is enabled in the project, MIDI Song Position Pointer is sent by the Arranger.

When selecting scenes, the grid LEDs indicate which scenes contain any locks, and which are empty. The track and page LEDs also flash green to show which tracks and pages contain scene locks.

One-finger bank- and pattern selection is possible by first pressing pattern or bank button and then quickly pressing one of the trig buttons.

The "beats" timestretch algorithm has been improved and should produce better results in extreme tempo scenarios.

MIDI Bank and Program Change can now be sent and received. Before changing patterns a corresponding Program Change message is sent. If the pattern is in bank A-H, the Bank Change message #0 may be sent, if the pattern is in bank I-P, the message #1 is sent. Receiving a Program Change queues the corresponding pattern to be played. Enabling and disabling send and receive is done in the MIDI SYNC menu.

Bug fixes

Setup parameters on LFO 2 and 3 were sometimes corrupt after reboot. Fixed.

Some audio files with corrupt headers could cause the machine to crash. Fixed.

When cutting low shelf EQ was used the highest frequency settings did not work. Fixed.

Some bugs playing complex arrangements have been fixed.

MIDI tracks with per track settings would sometimes not play correctly. Fixed.

Sometimes in Arrangement editing the trig keys stopped working. Fixed.

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Scenes selection in an arrangement did not work. Fixed.

At low pitches the timestretch would sometimes start with a double trig. Fixed.

List of changes from Octatrack DPS-1 OS 1.01 to 1.01B

Bug fixes

A bug sometimes stopping the Octatrack when booting has been resolved.

When externally synced to a device which does not send continuous clock, the BPM would drop to 30 momentarily shortly after start. Fixed.

Last slice was lost when using 64 slices and opening the sample editor. Fixed.

List of changes from Octatrack DPS-1 OS 1.0 to 1.01

Updates

Projects now remember if arranger mode is active or not, and restore the arranger state on load.

When creating pattern chains, it is now enough to keep at least one of the trig buttons held down while adding more patterns. Previously, the chaining would end as soon as any of the included trig keys were released.

Arrangement editor now shows available banks and patterns with green LEDs while choosing bank/pattern for a row.

Both the saved state and the working copy of an arrangement is now stored within the project, similar to how parts work. Previously, syncing to card or changing projects automatically saved all the arrangements. Now, both the saved state and the working state will be preserved until you explicitly save or reload each arrangement.

Copy/Clear/Paste can now be used inside arrangement change and arrangement chain lists.

Bug fixes

In some scenarios, the machine could lose connection to the current set, or show an incomplete list of projects. The sample browser could also get confused about the current directory path. Fixed.

Pattern rotate was erratic (trigs would show up from non-active pages). Fixed.

Master track didn't change parameters after pressing stop-stop in stop, unless there were trigs on the master track. Fixed.

Neighbor track didn't change parameters if it replaced an old neighbor machine from another part. Fixed.

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Rebooting the machine with arranger mode active could in some scenarios result in bank data loss. Fixed.

When triggering an audio track via MIDI other audio tracks could in some cases ignore trigs programmed or their track in the sequencer. Fixed.

When using the auto channel while being in MIDI mode note data and control change messages could in some cases also affect the audio tracks. Fixed.

The pass through feature of the MIDI tracks only worked for trivial MIDI channel assignments. Fixed.

Changing from a long arrangement to a shorter one could result in strange scene changes and row indicators being out of range. Fixed.

Name of the current arrangement would sometimes not render properly in the arranger window. Fixed.

It was possible to change arrangement while arranger was playing. This is not allowed. Use chain instead, or change to pattern mode before changing to the new arrangement.

Loading certain samples (or browsing a folder containing certain samples) would in some rare cases make the machine unresponsive. Fixed.

When using scale mode "per track", the master length didn't restart the MIDI tracks. Fixed.

When using track 8 as master track and doing manual trigs on other tracks the master track would in some cases not activate properly. Fixed.

When changing between different parts or different banks ram recorder trigs on the first step would not always get triggered. Fixed.