



AEROS

loop studio

Manual
Firmware 3.0.0

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INTRODUCTION

Welcome to your AEROS Loop Studio. Get ready to take full advantage of your new looping powers!

IMPORTANT NOTE: The AEROS uses 9v, center negative, 300 mA power. It is recommended to always use the Power Supply that was included with the Aeros to prevent unwanted noise and damage. It is also recommended to give the AEROS a dedicated power supply instead of powering it on a 'daisy chain' with other pedals to prevent unwanted noise. If you still get unwanted noise, please see the General Technical Information section.

There are three ways to navigate your AEROS: The touch screen (just like your smartphone), the wheel, and the footswitches.

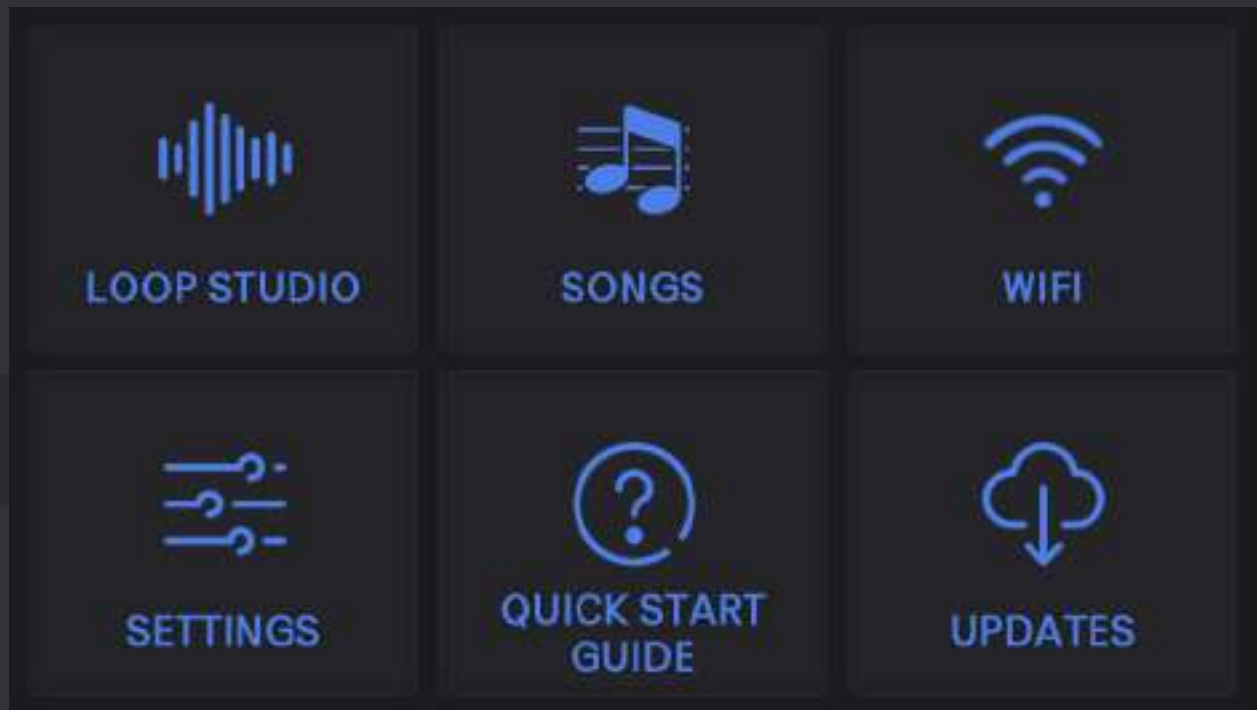
You can always tell what the three bottom footswitches do by reading the on-screen labels — this will come in handy when looping! The PLAY/STOP ALL footswitch and the VOLUME WHEEL do not change functionality.



Note: The on-screen labels only show the single press commands. Hold commands and double tap commands do not change, and therefore do not need labels. These commands are discussed in “2x2 Controls” and “6x6 Controls”.

HOME SCREEN

When you turn on your AEROS, you will start in the Home Screen. From here you can access different areas.



LOOP STUDIO - Where masterpieces are created. It will load your last saved song automatically.

SONGS - Load your saved songs, either from internal memory or an SD card.

WIFI - Connect to your wireless internet network.

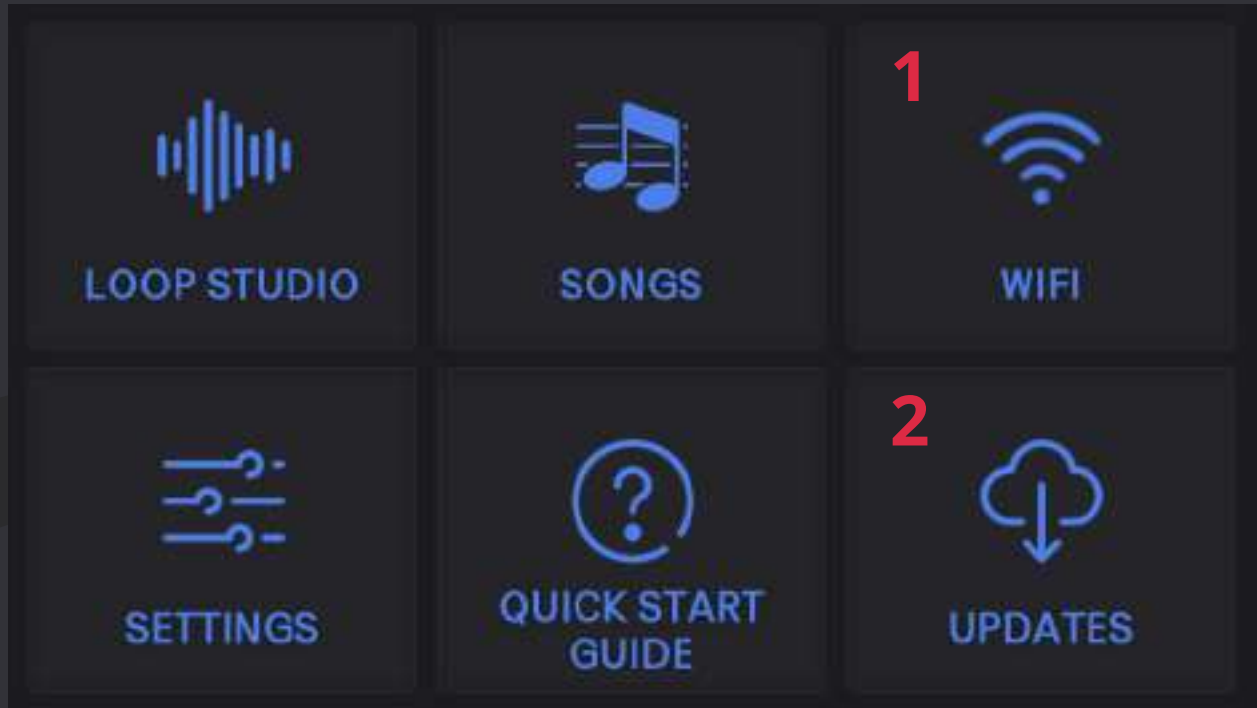
SETTINGS - Change settings that are applied AEROS-wide (to all songs).

QUICK START GUIDE - Familiarize yourself with the basics.

UPDATES - Check here to see if we've released new features. You must be connected to WiFi internet.

We know you're itching to hop into the Loop Studio, but please do this first:

1. Connect to your Wi-Fi
2. Check for updates



Try remaining connected to Wi-Fi whenever possible to ensure you have all the latest improvements and features. We're constantly improving the firmware, and there may be a new version available at the time you set up your AEROS.

Plugging an instrument into the AEROS:

The AEROS has two ¼" (6.35mm) Inputs. You can record in stereo or in mono. The two ¼" (6.35mm) outputs function in the same way.

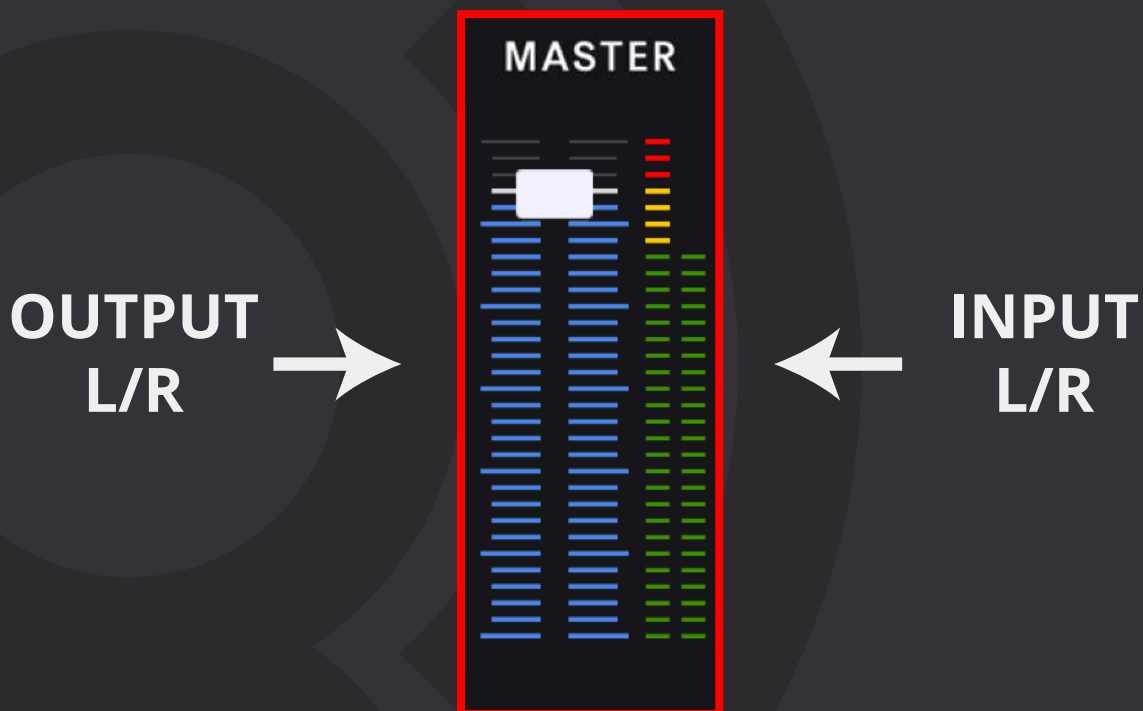
The AEROS also has a stereo Aux In audio input that you can plug an additional instrument into. To record from this source, see the main settings. You must use a TRS (tip-ring-sleeve) cable to achieve a stereo input signal.

The AEROS does not have phantom power for microphones. This means you may need a microphone preamp to adjust the microphone signal level — any preamp will work.

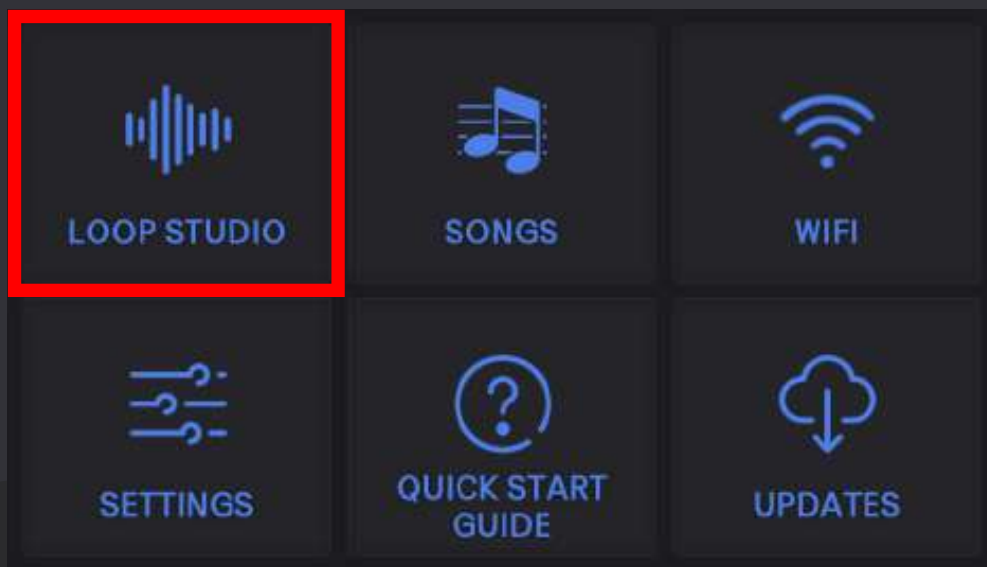
Signal levels:

Before you start recording, play your instruments at the loudest expected level in the loop studio. The signal meter will appear on the right side. If the signal reaches the red level, turn down your instrument to prevent clipping. The volume wheel only controls the output level, not the input level.

Note: Currently the signal meter only displays the input from the Main Left/Right input ports, not from the Aux in. This will be added in a future update.



To start looping, press the Loop Studio icon or press the Play/Stop All button from the main menu.



Your last saved song will load automatically. (If you have no saved songs, a new empty song will be loaded).

STOPPED SCREEN

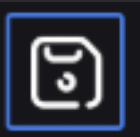


When you go to the Loop Studio, your song will be stopped. From here you can use the footswitches to record a new track or resume playback (if you already have tracks recorded in this song). We discuss these options in 2x2 Controls (p. 10) and 6x6 Controls (p. 13).

You can also press the icons on the screen to do the following:



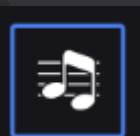
Edit Song (including any of the song-specific settings)



Save Song



Home Page

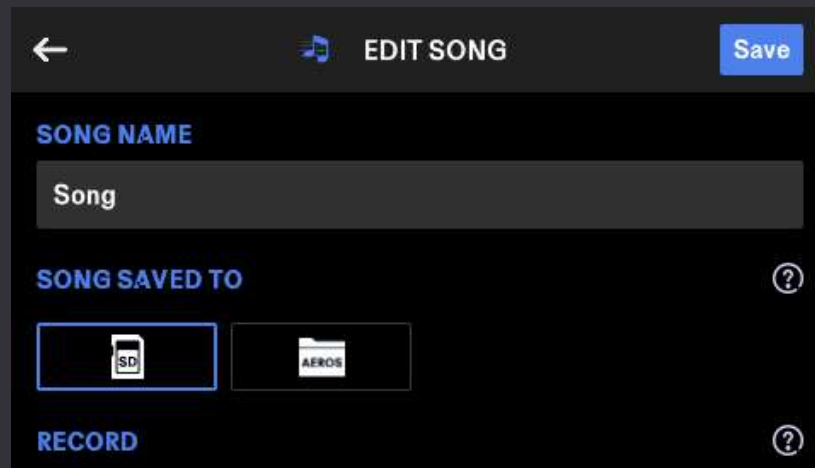


Song List



New Song

NEW SONG PAGE

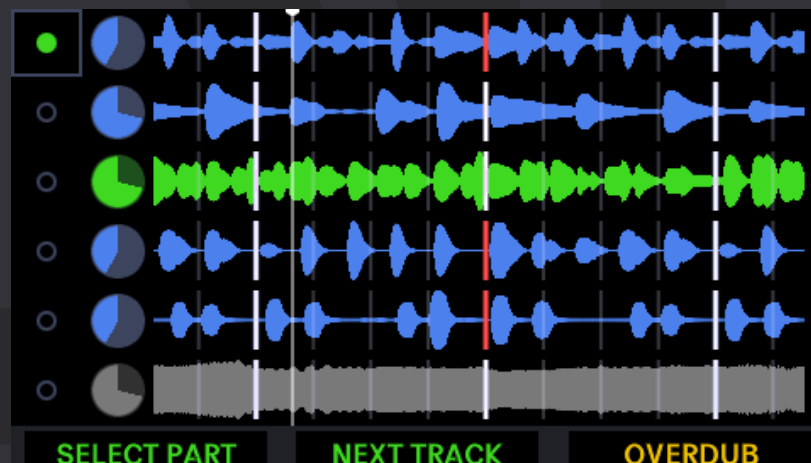


There are many settings available when creating a new song, which the (?) icon on the far-right provides explanations for. We discuss these options in the “SETTINGS” section of this manual. The default settings work for most people, and you can start looping right away without changing anything if you wish.

Here's some information to start you out:

The AEROS Loop Studio is the first looper pedal to allow parallel tracks (loops that play at the same time as each other) and **song parts** (groups of parallel tracks that you can switch between).

Parallel tracks are represented by clocks and waveforms, and song parts are represented by dots. The song part and track that is currently selected will be indicated by the color green.



There are two basic modes you can loop with: 2x2 and 6x6.

- In 2x2, you have two song parts each with two parallel tracks, for a total of four unique tracks.
- In 6x6, you have six song parts each with six parallel tracks, for a total of 36 unique tracks.



The controls are different when using 2x2 and 6x6.

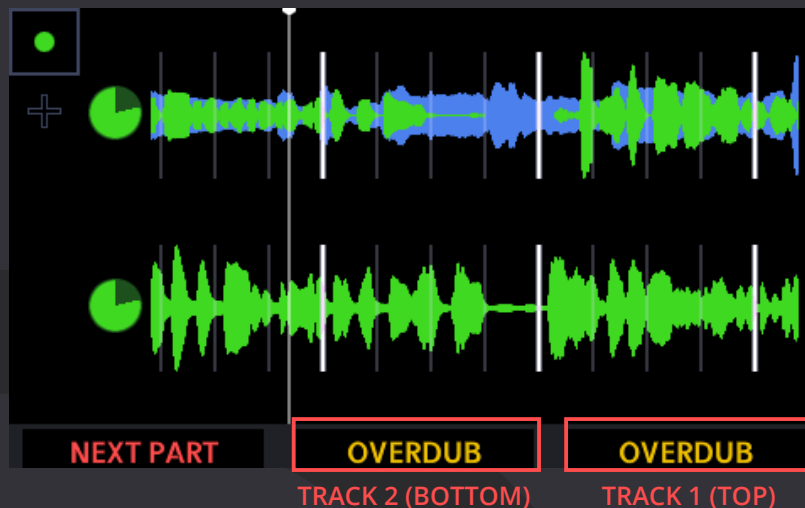
In 2x2, each parallel track has its own footswitch, and a single press on the Select Part button changes song parts, whereas in 6x6, you must first select the track or song part before you perform an action. It's a small trade-off tied to the amount of unique tracks you have available.

We recommend you try both modes and see what fits your style, or master both to get the most out of your AEROS in any situation!

In 2x2, you have two song parts each with two parallel tracks, for a total of four unique tracks.

TRACK 1 and TRACK 2

Track 1 and Track 2 are controlled by their respective footswitches.



SINGLE TAP:

- Record (if track is blank)
- Playback recording
- Overdub
- Playback overdub

DOUBLE TAP:

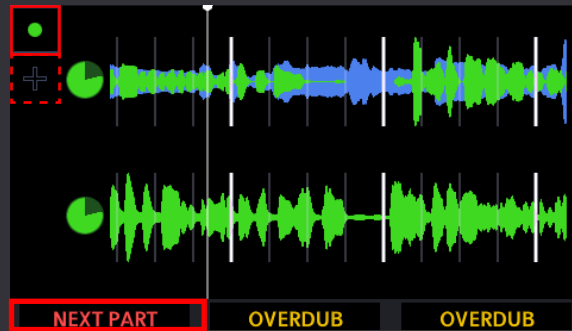
- Mute (happens immediately, End of Measure or End of Loop. See page 25 for mute settings)
 - Single tap to unmute

HOLD:

- Undo most recent layer
 - Continue to hold undo second layer (if it exists)
 - If you have undone all layers, single tap to overwrite track
- Redo most recent layer
 - Continue to hold to redo overdub (if it exists)

Overdubs: Overdubs are additional layers of recordings on top of the original track. You can have unlimited overdubs, but each new overdub will merge the previous overdub to the base layer. So you can have at most two layers per track -- your base layer and your most recent overdub layer. For each track, the most recent overdub is merged with the base layer when the song is saved. This frees up internal memory.

NEXT PART



SINGLE TAP:

- Changes between song parts. If the song part already has a recorded track in it, it starts playback of the next part; otherwise, it starts recording.

HOLD:

- Opens the Mixer

PLAY/STOP ALL



SINGLE TAP:

- Stops playback of all tracks.
 - You can choose in the Main Settings whether it stops immediately/at the end of the measure or at the end of the longest loop (default) in the song part.
- Resumes playback of all tracks.

DOUBLE TAP:

- Immediately stops playback of all tracks, regardless of setting.

Hold (when stopped) :

- Delete all tracks and song parts and start the song over.

PRESS/RELEASE: In Main Settings, set whether the Play/Stop All button reacts on the press or on the release of the button. Press is more immediate, however, holding to delete all tracks while stopped will start playback of the song for a few seconds before the delete command is enacted.

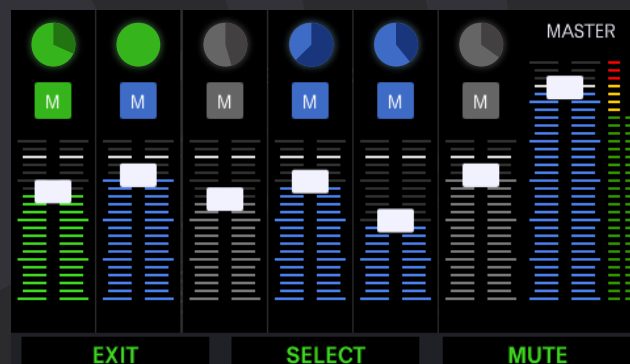
VOLUME WHEEL

Use the volume wheel to control the master output volume at any time.



The thin bars on the right show the L and R input volume levels. If the bars are red you are clipping and you should lower the volume of your instrument.

In the Mixer: You can use the volume wheel to control the relative volume levels of each track.

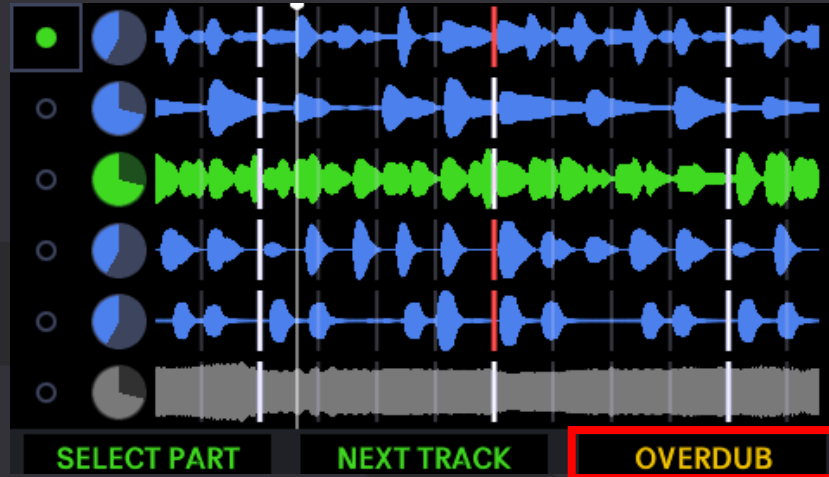


If no tracks are muted, selecting the master track from the mixer view will give option to “Mute All”. If at least one is muted, the option will be to “Unmute All”.

In 6x6, you have six song parts each with six parallel tracks, for a total of 36 unique tracks.

ACTION

The Action button (lower right) executes actions on the selected track or song part. Selected items are indicated by green color.



SINGLE TAP:

- Record (if track or song part is blank)
- Playback recording
- Overdub
- Playback overdub

DOUBLE TAP:

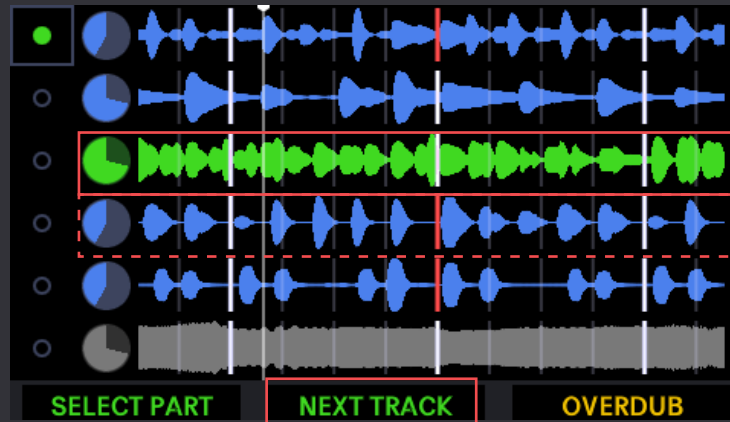
- Mute (happens Immediately, End of Measure or End of Loop. See page 25 for mute settings)
 - Single tap to unmute

HOLD:

- Undo most recent layer
 - Continue to hold undo second layer (if it exists)
 - If you have undone all layers, single tap to overwrite track
- Redo most recently undone layer
 - Continue to hold to redo overdub (if it exists)

Overdubs: You can have unlimited overdubs, but each new overdub will merge the previous overdub to the base layer. So you can have at most two layers per track -- your base layer and your most recent overdub layer. For each track, the most recent overdub is merged with the base layer when the song is saved. This frees up internal memory.

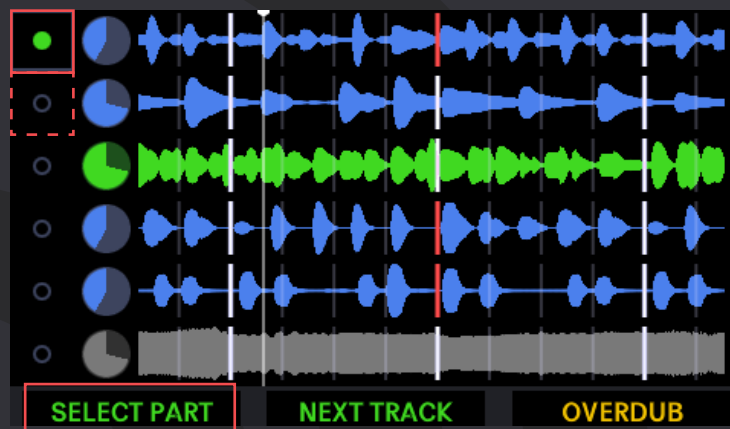
NEXT TRACK



SINGLE TAP:

- Selects next track
 - If selecting an empty track, it will automatically start/cue a new recording.

SELECT PART



SINGLE TAP:

- Selects next song part
 - Press the action button to change to the selected song part.
 - If the selected song part has no previous recording (it is a new song part, as indicated by the "+" sign), pressing the Action button will begin a new recording on that song part.
 - If the selected song part already has a recorded track, the Action button plays the song part.

HOLD:

- Opens the Mixer

PLAY/STOP ALL



SINGLE TAP:

- Stops playback of all tracks.
 - You can choose in the Main Settings whether it stops immediately/at the end of the measure or at the end of the longest loop (default) in the song part.
- Resumes playback of all tracks.
 - You can select different song parts and tracks while the song is stopped. Pressing the Action button will start overdubbing or recording the selected track.

DOUBLE TAP:

- Immediately stops playback of all tracks, regardless of setting.

HOLD (when stopped) :

- Delete all tracks and song parts and start the song over.

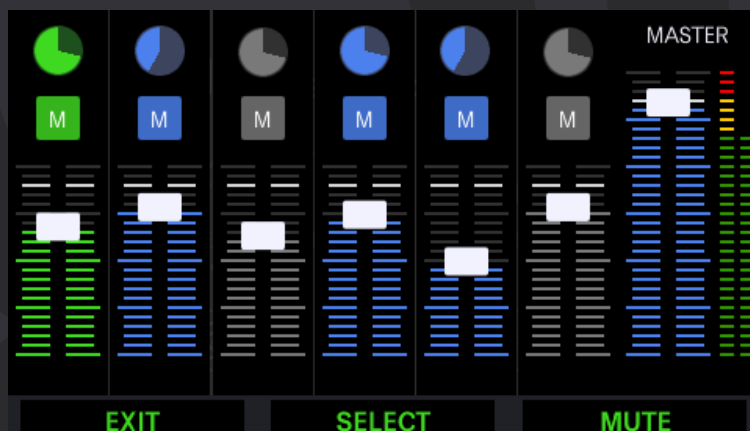
PRESS/RELEASE: In Main Settings, set whether the Play/Stop All button reacts on the press or on the release of the button. Press is more immediate, however, holding to delete all tracks while stopped will start playback of the song for a few seconds before the delete command is enacted.

VOLUME WHEEL

Use the volume wheel to control the master output volume at any time. The wheel can also be used to navigate menus and the song list.

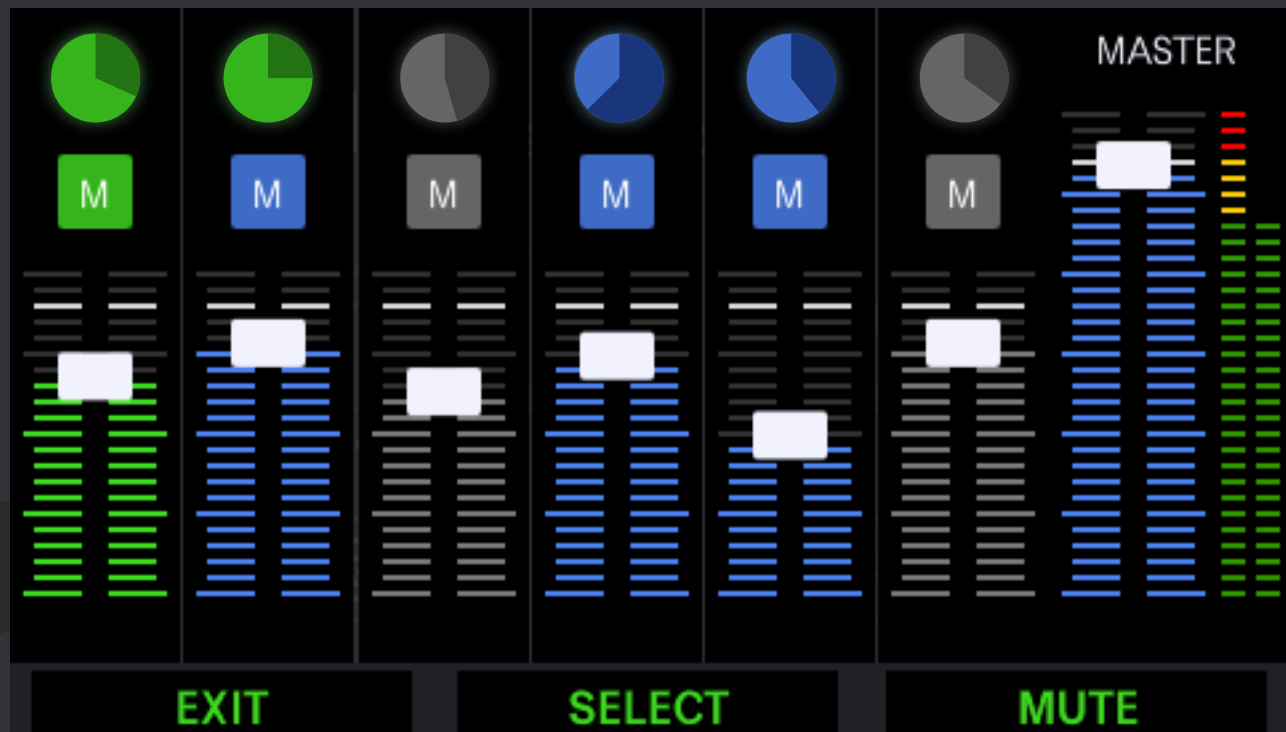


The thin bars on the right show the L and R input volume levels. If the bars are red you are clipping and should lower the volume of your instrument.



In the Mixer: You can use the volume wheel to control the relative volume levels of each track.

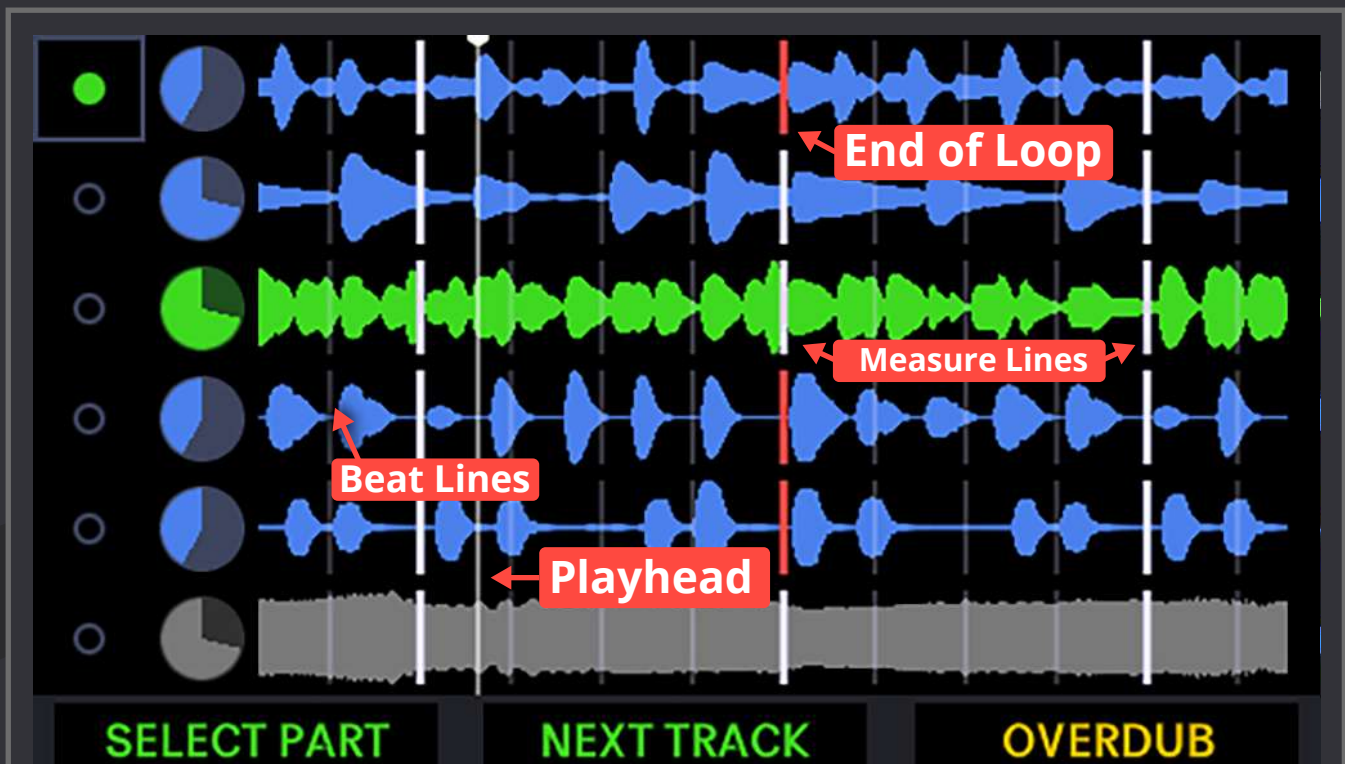
To open the mixer, you can hold the NEXT PART button or tap on any of the track clocks.



Tracks in the current song part will be visible, ordered from left to right. You can touch to adjust their relative volume or mute individual tracks. You can also mix hands-free: select tracks with the middle button and adjust the relative volume with the volume wheel. Mute or unmute with the right button.

Note: Opening the mixer does not stop the song!

TIMING



<p>Playhead</p>	<p>Where you currently are in the loop. In quantized mode, flashes on each beat and flashes brighter on each measure.</p>
<p>Beat</p>	<p>Each beat is shown by a thin white line (only in quantized mode)</p>
<p>Measure</p>	<p>Each measure is shown by a thick white line (only in quantized mode)</p>
<p>End of Loop</p>	<p>The end of the loop is shown by a thick red line</p>

TRACK WAVEFORMS



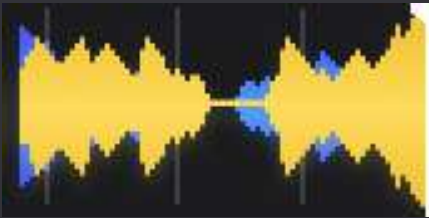
Red Waveform:
Currently recording new track



Green Waveform:
Currently selected layer



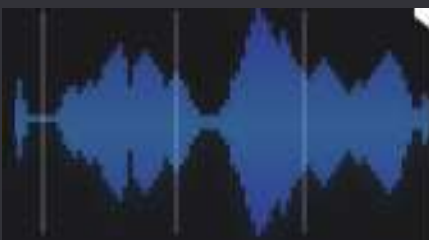
Blue Waveform:
Layer is currently playing,
but is not selected



Yellow Waveform:
Currently recording overdub













Gray Waveform:
Muted track








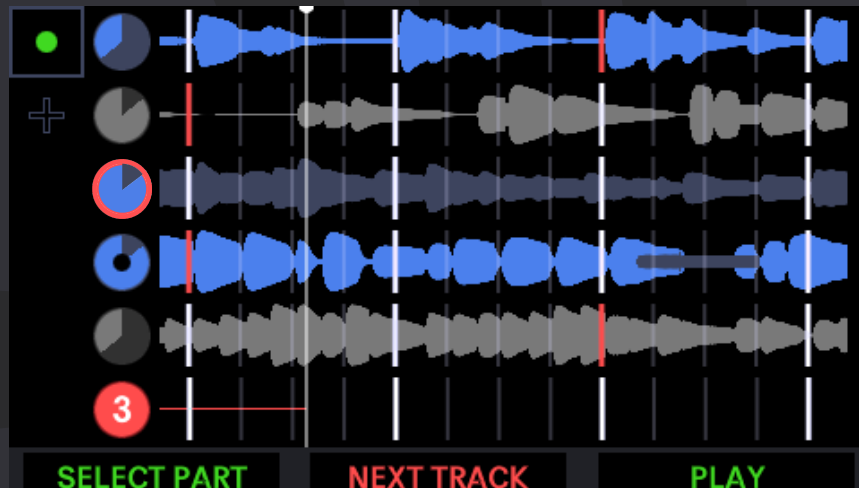
Faded Waveform:
Layer is undone. Undone layer
can be brought back or overwritten

TRACK CLOCKS

	<p>Shaded portion of clock: amount of track already played</p> <p>Light portion of clock: time remaining in track</p>
	<p>Solid Red Circle: Track is currently recording. Will show number of measures currently recorded in quantized mode.</p>
	<p>Green clock: Currently selected track</p>
	<p>Blue clock: Track is currently playing, but is not selected</p>
	<p>Yellow clock: Track is being overdubbed</p>
	<p>Gray clock: Entire track is muted</p>
	<p>Gray clock with green outline: Muted track is currently selected</p>
	<p>Clock with a hole: This track has a layer that is undone. Undone layer can be brought back or overwritten</p>
	<p>Clock with a big hole: The base layer of the track has been undone and can be redone or the entire track can be completely overwritten with a new length</p>
	<p>Flashing red outline: Next Part/Stop All command enacted with End of Loop setting enabled, shown on longest track in song part. This is so you know the command will happen at the end of that track.</p> <p>Solid red outline: Indicates the base track while recording (current longest track in a song part) if Sync Length setting is enabled. This is to show which track is setting the length rules.</p>

SONG PART ICONS

	Square box: Currently playing song part
	Green dot: currently selected song part
	Flashing Green dot: Song part transition cued
	Hollow dot: unselected existing song part
	Flashing red plus sign: new song part is cued and will start recording soon



SETTINGS

The settings are divided into two categories.

1. **Song settings** are settings that are saved to a single song. Once you record using song settings, you cannot change them. The exceptions are editing the song name, the location saved, and count in settings. This is accessed through the edit icon in the loop studio screen.
2. **Main settings** can be changed at any time, and will apply to every song. This is accessed through the Settings icon in the home screen.

SONG SETTINGS

Song Name: Edit the name of your song at any time.

Song saved to: Save this song to either the internal memory of the AEROS or to an SD card. (Max SD card size is 32GB)

Record: Sets how the audio will be recorded to the AEROS.

- Mono: Both Left and Right Audio inputs are summed (combined) into mono audio, doesn't affect live monitoring/playback from AEROS.
- Stereo: Audio is separated into L/R channels of recorded audio, doesn't affect live monitoring/playback from AEROS.

Number of tracks: How many song parts and parallel loops in each song part there are. 2x2 gives you 2 song parts with 2 parallel tracks each. 6x6 gives you 6 song parts with 6 parallel tracks each. 2x2 gives you immediate access to the tracks and song parts, while in 6x6 you need to select a track or song part before you activate it.

SETTINGS

Sync Track Features

- Definition: “Base Track”: The current longest loop in the song part
- Sync Length: After 1st track is recorded, all tracks will be forced to be proportional to the length of the base track. In quantized mode, all tracks will be forced to be any whole number multiple (x2, x3, x4, etc.) or whole number unit fraction (1/2, 1/3, 1/4, 1/5, etc) of the base track. For example, if the base track is 12 measures long, other tracks will be forced to be either 1, 2, 3, 4, 6, 12, 24, 36, etc. measures long depending on when the end recording/start playback command is given. In freeform, all tracks will be whole number multiples of the base track (no fractions allowed). Tracks can be started at next measure in quantized mode, or immediately in freeform, so this only affects when recording stops and playback begins.
- Sync Start & Length: In addition to the Sync Length rules above, after 1st track is recorded in a song part, all new recordings will begin at the next start of the base track loop.

Quantize to measure: Starts and ends recording at the beginning/end of the measure. This requires a BPM and time signature setting (With BeatBuddy connected [MIDI Sync On], BPM and Time Signature will be set automatically). If this is off, song will be in Freeform (non-quantized) mode.

Time Signature: The left number is how many beats in a measure, the right number decides which note gets the beat (quarter notes, eighth notes, etc)

Tempo: Speed of the song. How many beats per minute (BPM).

Count in: How many measures of clicks before the AEROS begins recording. Count in is only active when recording the first track in a song part while AEROS is stopped.

DEVICE SETTINGS

Recording source: Selects which input is recorded. You may select one or both:

- Main In
- Aux In

Note: There must at least one recording source.

Main Input Level: Sets the impedance for the inputs. Instrument level is about 10% more sensitive than Line level.

Instrument (1M Ohms impedance)

Line in (50k Ohms impedance)

Audio Output: Sets whether audio is monitored in Stereo or in Mono

Mono: Audio plays back summed into mono from each output channel. (Warning: Stereo monitoring, like with headphones, when using this setting will cause audio to seem twice as loud because the entire signal is sent out both left and right channels, instead of splitting it between them)

Stereo: Audio plays back split in L/R channels.

Loop playback routing: Selects where the Loop Playback is sent. You may select one or both:

- Main Out
- Aux Out

Note: The loop playback must be sent to at least one output.

Main input routing: Selects where the live sound going into the Main Input is sent. You may select one, both, or neither (the ability to use neither was requested by users who use a mixer going into the AEROS and want to prevent a 'phasing' effect):

- Main Out
- Aux Out

Aux In Routing: Selects where the live sound going into the Aux In is sent. You may select one, both, or neither:

- Main Out
- Aux Out

Click Routing: Selects where to send the Click track. You may select one, both, or neither:

- Main Out
- Aux Out

Click after recording first track: Determines if click will playback always or only while recording the first track in each song part. If setting is off will only be audible on first recording pass (Note: if click isn't routed to either output you won't hear it).

- On
- Off

Tip: By routing the click to the Aux Out, you can connect a separate speaker to the Aux Out so you only hear the click while the audience hears the Main Out.

Click Volume: How loud the click track is played.

MIDI IN Start: Sets how the AEROS responds to a MIDI Start message, you can choose one, both, or neither, though at least one is recommended.

- Record (only will record if there is no tracks present in the song part)
- Playback (will start playback if there are tracks present in the song part)

Change Song Part/Stop Song: Stop All commands (Play/Stop All button) and Next Part commands (change song parts) are enacted at the end of the longest loop in the song part. If during recording or overdubbing, will continue recording/overdubbing until end of longest loop. Without this feature on, in freeform mode Next Part/Stop All functions are immediate, and in quantized mode at the end of the current measure.

- Immediate/End of Measure(EOM)
- End of Loop

Mute/ Unmute Track: Sets when the Mute/Unmute command (double tap to mute, single tap to unmute) will be triggered after being given. Muting from the mixer screen will always be immediate. If no tracks are muted, selecting the master volume from the mixer view will give the option to “Mute All”. If at least one track is muted, the option will be to “Unmute All”.

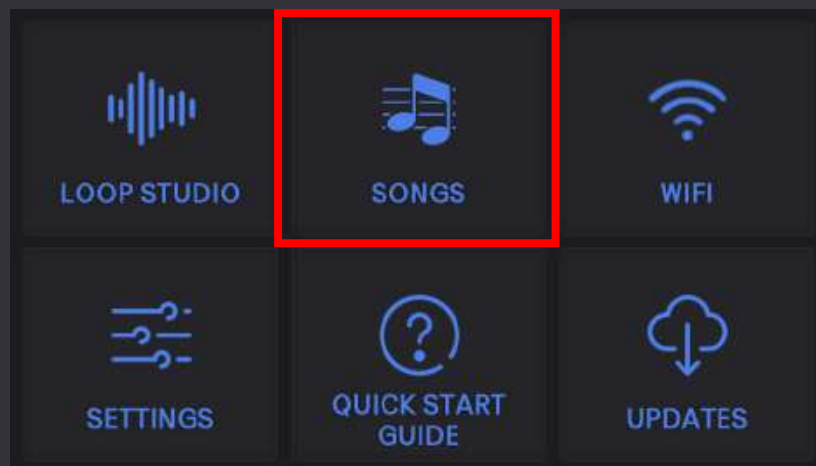
- Immediate: Immediately triggers the mute/unmute on a track once mute command is applied.
- EOM (End Of Measure): Waits to trigger muting/unmuting until the end of the currently playing measure.
- End of Loop: Waits to trigger muting/unmuting until the end of the loop.

Play/Stop All Button: Sets whether Play/Stop All Button responds to the press or the release of the button.

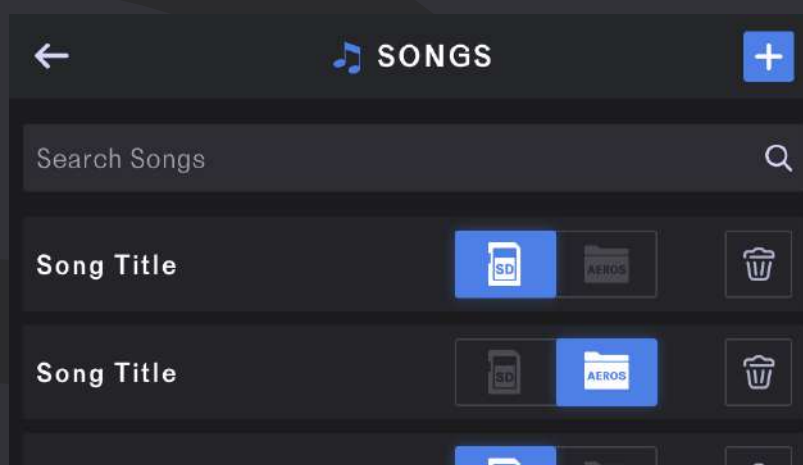
- Press: Play/Stop All responds to commands as soon as you press the button, which makes it more immediate, but will cause a small amount of sound to be played when holding it down while stopped to clear a song.
- Release: Play/Stop All responds to commands as soon as you release the button.

Hit “Restore Default Settings” to reset AEROS to factory global settings.

In the Home Screen, you can find your songs by pressing the Songs icon.



You can scroll through your songs, search for them in the search bar, or start a new song by tapping the “+” icon in the upper-right corner.



Tap any song to load it. You will find yourself back in the Loop Studio with the song you chose.

Songs that are stored in the internal memory of the AEROS will be indicated by the blue AEROS folder icon. Songs that are stored in an SD Card (if that SD card is currently inserted into your AEROS) will be indicated by the blue SD Card icon.

You can move your songs between internal memory and an SD card by tapping the icon of where you want to save your song.

To delete a song, tap the Trash Can icon.



Your AEROS Loop Studio has built in plug and play functionality with the BeatBuddy, our hands-free drum machine pedal. Currently AEROS can be controlled by the BeatBuddy (BeatBuddy is 'Master', AEROS is 'Slave'). We will be implementing the AEROS as Master capability in a future update.

AEROS AS SLAVE, BEATBUDDY AS MASTER

To use the AEROS as a slave, you'll need a [standard 5 pin MIDI cable](#), the [PS/2 to MIDI BeatBuddy breakout cable](#), and a BeatBuddy. Plug the MIDI Cable in the "OUT" port for the BeatBuddy breakout cable, and the "IN" port on the AEROS.



Make sure you have updated your BeatBuddy to the latest firmware (3.80 or later). At this point your pedals should be good to go.

However, if you have changed your MIDI settings on your BeatBuddy, please check that the Next Part (CC-102) command is enabled. This can be done by going BeatBuddy settings (push drum set and tempo knobs down at the same time) and select: Main Pedal > MIDI Settings > MIDI-OUT > Next Part (CC-102), and select "Enable".

The BeatBuddy will automatically set the tempo (BPM) and time signature on the AEROS. PLEASE NOTE: The time signature is only sent from the BeatBuddy when you first load a song on the BeatBuddy. So if you start a new song on the Aeros, you will need to change the song on the BeatBuddy for the time signature to be sent.

In both 2x2 and 6x6 (with default settings), starting the BeatBuddy with an intro will trigger the looper to start on the first beat of the main rhythm part after the intro fill is played. This can be configured in the BeatBuddy's MIDI settings to also start on the first beat of the intro if you prefer, by changing the BeatBuddy setting located at Main Pedal > MIDI Settings > MIDI-OUT > Start.

Additionally, with default settings, the looper will stop playing/recording at the end of an outro fill and/or when the BeatBuddy is paused. This can be changed to stop the AEROS either when the BeatBuddy is paused only, or only when the BeatBuddy ends playing the drums. That setting is located on the BeatBuddy at Main Pedal > MIDI Settings > MIDI-OUT > Stop.

In 2x2, transitioning to the next song part with the BeatBuddy will cause the AEROS to switch song parts at the end of the BeatBuddy's transition.

In 6x6 you'll need to manually select which song part you wish to transition to, using the looper's bottom left button, and then transition using the BeatBuddy. After which, the looper will switch to the selected song part at the end of the BeatBuddy's transition.

The Next Part (transition) and Stop commands (outro, pause) from the BeatBuddy will override the Change Song Part/Stop Song setting if it is set to "End of Loop", so AEROS will not wait until the end of the loop to change parts or stop the song when it receives these commands, that way it stays in sync with the BeatBuddy.

At any point in both 2x2 and 6x6 you can use the AEROS to transition as you would normally, to keep the BeatBuddy rhythm the same while the song part changes on the AEROS. Additionally, adding fills and accent hits with the BeatBuddy has no effect on the AEROS' loops, giving you the ability to vary the drums while the AEROS continues to play.

AEROS is set to respond to MIDI messages sent on ALL channels. Making the AEROS respond to only one specific MIDI channel is coming soon.

AEROS passes through all MIDI commands it receives in the MIDI In port to the MIDI Out port.

Currently AEROS responds to these MIDI commands:

Sysex: Start/Stop

MIDI Clock: AEROS may take a few seconds to adjust to an incoming MIDI clock signal when starting a new song

Time Signature: This is sent by BeatBuddy whenever a song is loaded as a Sys-ex midi message.

(All values in hex)

(2/4) ---- F0 7F 7F 03 02 04 02 02 18 08 F7

(3/4) ---- F0 7F 7F 03 02 04 03 02 18 08 F7

(4/4) ---- F0 7F 7F 03 02 04 04 02 18 08 F7

(6/8) ---- F0 7F 7F 03 02 06 03 02 18 08 F7

CC-102 (value 0-127): Next Part command changes song parts in 2x2 immediately. In 6x6, it will change song parts if a different song part than the one currently playing is selected. Please note: This command overrides the 'Change Parts: End of Loop' setting.

CC-127 (value 127) will save a screenshot of the current AEROS screen to the SD card. Note: must have SD card

More MIDI command responsiveness is coming soon.

Currently, the AEROS does not generate it's own MIDI clock or MIDI commands. This feature is coming soon.

Overdubs: Shown in yellow, overdubs are recordings that are “on top” of a previous recording on the same track. Unlimited overdubs enable you to create layers and depth in your loops without worrying about memory restrictions. This is similar to what other loopers call “stacks”. You always have two layers of memory to work with for each individual track: The base layer and the latest overdub layer. If the current selected track already has an overdub, overdubbing again will merge the previous overdub layer with the base layer. Once an overdub is merged, it cannot be unmerged. If you undo only the overdub layer and keep the base layer, recording another overdub will replace the undone layer.

The AEROS is compatible with **SD card size (4-32GB)**, class 10 is recommended for faster loading speed.

Recording time per song: 20 min (mono)

Recording storage: Internal 3 hours mono, 1.5 hours stereo recording time and up to 48 hours (mono) storage when using a 32 GB SD card.

Sound Quality: 32-bit floating point processing, 24-bit recording, 44.1kHz sample rate, professional DACs, <1ms latency, and 20hz – 20kHz range

Digital dry through bypass: AEROS does not affect the pass through audio quality or latency, but the AEROS must be powered on to pass through audio.

External expression pedal: This is intended as an alternative to using the volume wheel. Please note that this function is not yet available in the current firmware and will be provided in a future update.

Loop Forgiveness Period: If you press the button to start or end recording within 300 ms after the measure line, AEROS will consider that you meant to press the button on the measure line that just passed. This is for the comfort of players who are used to pressing a button ‘on beat’ instead of in advance of the measure line - most people miss the intended beat by fraction of a second. Please note that starting a loop late will leave a visual “hole” in the beginning of the loop waveform, however the audio is captured in the loop.

Requires Male to Male standard 5 pin MIDI Cable for connecting to the MIDI Maestro. AEROS requires a Male to Male MIDI Cable as well as MIDI Breakout Cable for connecting to the BeatBuddy

With some specific combinations of equipment and electrical systems, a hum may occur due to a 'ground loop'. This can be removed using a hum eliminating device such as the [Behringer MicroHD HD400 Ultra-Compact 2-Channel Hum Destroyer](#) or [Mpow Ground Loop Noise Isolator](#)

Cross fades: 4ms fade in/out and crossfade between song parts is done automatically to prevent sound 'pops' if audio is recorded over the loop seam.

Crash Log: If your AEROS crashes while using an SD card, the AEROS will save a log of that crash to the SD, which you can email as a zipped (compressed) file to support@singularsound.com. This will help us understand what happened, and work to fix the issue.

Specs:

I/O: two 1/4" (6.35 mm) inputs, two 1/4" (6.35 mm) outputs, one 1/4" (6.35 mm) stereo aux input, one 1/4" (6.35 mm) stereo aux output.

Power: 9v (center negative), 360mA

4.3" (109 mm) touchscreen color display

Dimensions: 7.8" x 5.6" x 2.2" (198 x 142 x 56 mm)

Weight: 2lbs 4oz (936 g)

Aluminum construction with chip resistant black coating.

Firmware 3.0.0 Changelog:

- Added quick start guide
- Added cross fade on loop seams and quick fade in/out on start/stop to prevent audio pops
- You can now Undo with a hold command while overdubbing
- Saving/managing songs on SD card is now available in song edit screen and song list screen (Maximum SD card size supported is 32 GB)
- Songs are now sorted in song list by last loaded order (all SD card stored songs will be below internal memory stored songs in the song list screen after bootup)
- Songs can now be renamed again when editing song
- Added Memory Used to Stopped Screen: This is how much of the currently loaded song memory has been used (up to 20 minutes mono recording time available per song). Saving the song will merge the overdubs and free up more memory. This is not the total stored memory of all songs (which can be expanded with the SD card)
- Added Sync tracks feature (start / length) in song settings: Sync Start forces all tracks to start in the same place. Sync length will force all tracks to be a ratio of the longest track in the song part (indicated with a red circle around the track clock while recording) to keep all tracks in sync with each other. See the help text next to these settings for details
- Added track offsets: If sync start is off, the Aeros will now keep the relative differences between the start points of tracks after the Aeros is stopped or changes song parts
- Added global setting: Change song parts/Stop song: Immediate/End of Measure, End of Loop. This controls when song parts change and when Aeros stops playback after pressing the Stop All button. If End of Loop is enabled, song parts will change and playback will stop at the end of the longest loop in the currently playing song part, and you will see a blinking red circle around the longest loop track clock while this is happening. If the [Immediate/EOM] option is selected, Freeform songs will change/stop immediately and Quantized songs will change/stop at the End of Measure. The Next Part and Stop MIDI commands override this setting, so changing parts/stopping with the BeatBuddy will cause the Aeros to respond immediately to keep both units in sync.
- New Setting: Mute Immediately, End of Measure, End of Loop. This is for muting a track with a double tap. Muting in the mixer screen is always immediate.
- Added "Mute All" option to mixer screen when no tracks are muted
- Aeros now resets mixer volume levels to neutral after clearing a song by holding down Play/Stop ALL button
- New Setting: Record songs in Mono/Stereo (set when starting a new song)
- New Setting: Play audio in Mono/Stereo (main settings)
- New Setting: Play/Stop All button on press/release. Previously this button was active on release, it is now active on press, which makes it more immediate, but will cause a small amount of sound to be played when holding it down while stopped to clear a song. You can change it with the setting
- Next Track button in 6x6 mode now works on downpress instead of release
- Enabled single note time signatures (1/4, 1/8) so songs can be quantized to the beat instead of the measure
- Tap tempo now follows time signature note type instead of always quarter notes
- Reduced forgiveness lag from 500ms to 300ms. This is the time of a button pressed after the measure line triggering at the passed measure line.
- Allow Main Input to not be routed anywhere. This was requested by users who use a mixer going into the Aeros and want to prevent a 'phasing' effect.
- Song is now only loaded when entering loop studio screen upon boot up to prevent long boot up time
- Refactored Audio block processing for additional stability
- Made Play/Stop All button work as exit from all screens
- Click is now audible in both main out and aux out during Count In
- Added Screenshot function: MIDI message CC127:127 will save a screenshot to the SD card
- New system to create log files on the SD card if Aeros crashes/freezes. In the rare case that the Aeros crashes, please email the crash log files to support@singularsound.com

Fixes:

- Close loop at forgiveness point: Audio will be captured during the forgiveness period (up to 300 ms) and added to the loop to prevent loop 'holes' when pressing the button shortly after the measure line. (NOTE: The waveform in this section will not be visible but the audio is present)
- Limit keyboard input to numbers and letters for first character of song name, to prevent empty song bug
- Allow spaces in song name
- Automatically delete transient overdub when muting with double tap
- Muting with double tap will now not merge the overdub and base layer
- Mixer now has track selected that was selected in loop studio
- Fixed cancel recording on undone track making the measure lines disappear
- Stability improvements on song parts. Fixed BeatBuddy next part crash.
- Fixed crash when saving long songs
- Fixed save button not working bug
- Fixed song with no name being created bug
- Fixed lost audio tracks after renaming song
- Fixed crash caused by touching the screen while deleting song
- Fixed: Cue recording with Next Track in 6x6 while recording and then cancel cue caused currently recording track to stop recording

2.13.1 Changelog:

- Aeros will now start at the End of Measure if receiving MIDI Clock
- Added Setting to control what Aeros does when it receives MIDI Start Command: Record, Playback
- Removed measure number in track clock during count in

KNOWN BUG: All the startpoints of the loops get aligned when Aeros is stopped, even if they were not aligned when recorded. (This bug is also present in previous non-beta firmware versions and should be fixed soon)

Firmware 2.12.2 Changelog:

- Added Freeform mode (see known bug below)
- Re-sync system: Aeros now follows BB midi clock. This corrects any 'wavers' in the master MIDI clock to resync the beginning of the Aeros loop playback to the beginning of the measure.
- Made recording measure count number in track clock bigger for easier visibility
- Added Line-in impedance setting. Sets the input sensitivity: Instrument level (1M Ohms impedance) vs Line level (50k Ohms impedance) Instrument level is about 10% more sensitive than Line level.
- Added more WiFi statuses in the home screen to indicate if internet and server connection are successful.

Fixes

- Fixed signature 2/4 not accepted
- Fixed info box message for "click after recording first track"
- Fixed recording count starting at 1 during a cue of recording.

KNOWN BUG: When using freeform, all the startpoints of the loops get aligned, even if they were not aligned in the first place.

Firmware 2.11.1 Changelog:

- Added undo/redo while the Aeros is stopped
- Added scrolling through pages (such as song list) with Volume Wheel
- Added button navigation for scrolling and selecting songs in song list
- Added measure count number in track clock while recording a new track
- Added setting to turn off click after first track has been recorded
- Added automatic save of song parameters when creating/editing a song. New songs will automatically start with the last settings used
- Extended master volume display time to 3 seconds after no movement of Volume Wheel
- Added automatic save of song parameters when creating/editing a song. New songs will automatically start with the last settings used
- Added image integrity verification during boot up to detect corrupted software. This should prevent the bug where 6x6 does not work and songs can't be saved

Bug Fixes:

- Fixed when the 6th track is muted and song part change command unmutes it instead of changing song part
- Undo is now recognized as a change and activates the save song button
- Count-in now only active when recording the first track in an empty song part
- Fixed song title, time signature and tempo not being updated to the Stopped screen

2.10.0 Changelog:

- New Stopped screen: When the song is stopped, a new screen is displayed. This includes info about the song, the input signal meter (useful to test your instrument's signal level before recording to avoid clipping), and buttons to edit the song, go to the home screen, start a new song, and save the current song.
- Changed to Manual Save: Previous versions of the firmware saved the song automatically every time the song was stopped. This caused some delay as the song was being saved so the Aeros could not be started again immediately. With the new manual save system (you must press the save button on the stopped screen to save the song), you get to choose when the song is saved. Saving a song merges all overdubs with the base tracks, which frees up more memory for more recording in the song.
- Added pop-up when attempting to exit Loop Studio screen without saving changes (changes are still present, but could be lost if another song is loaded or device shut down)
- New track clock graphics: Undo overdub vs undo entire track. If only the overdub layer is undone, the track clock will have a small hole. If the entire track is undone, the track clock will have a large hole. You can undo and redo both layers by holding down the RPO (Record/Play/Overdub) button – first the overdub will undo (if it exists), then continue to hold to undo the base layer. Hold and continue to hold to redo.
- Increased next track forgiveness to 1.5 seconds: If you tap the next track in 6x6 mode and accidentally start recording a new track, tapping it again within 1.5 seconds will delete the accidentally recorded track and move you to track 1.
- Changed the active song part to have a blue square around it: Previously, the currently playing song part was missing a blue square while the non-playing song parts all had blue squares around them. This new design is easier to see.
- Added 0.5 second forgiveness lag for End of Measure commands: Now if you miss the end of measure by 0.5 seconds or less when recording or changing song parts, Aeros will behave as if you triggered the command on the End of Measure that you missed. This allows you to trigger commands on the End of Measure line, without having to worry that you'll miss it.
- Fixed 6x6 cancel recording: When using a count-in to record in 6x6, the 'Cancel Record' command was not working. This has been fixed.
- Fixed white lines location in mixer that show the neutral position of the volume sliders.
- Temporarily removed the capability to edit the name of a song, since this was causing the audio files to be deleted. Song name edit capability will be enabled once this bug has been fixed.
- Added saving of undo state: If you undo a track, it will remain undone, even if you save the song and load it again later. Undone overdub layers will be deleted.
- Fixed bug: When stopping Aeros during recording (instead of pressing 'Play' to capture the loop), only the first measure was captured. Now the entire recording is captured.
- Restored master volume to default neutral level after loading a new song. Previously master volume was at the level it was last set to.
- Added Wifi Status on Home Page so you can quickly see if you're connected to Wifi.
- Added Unmute All button command when master volume is selected in mixer