

AEROS

loop studio

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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.

Navigating Your Aeros

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 during playback.

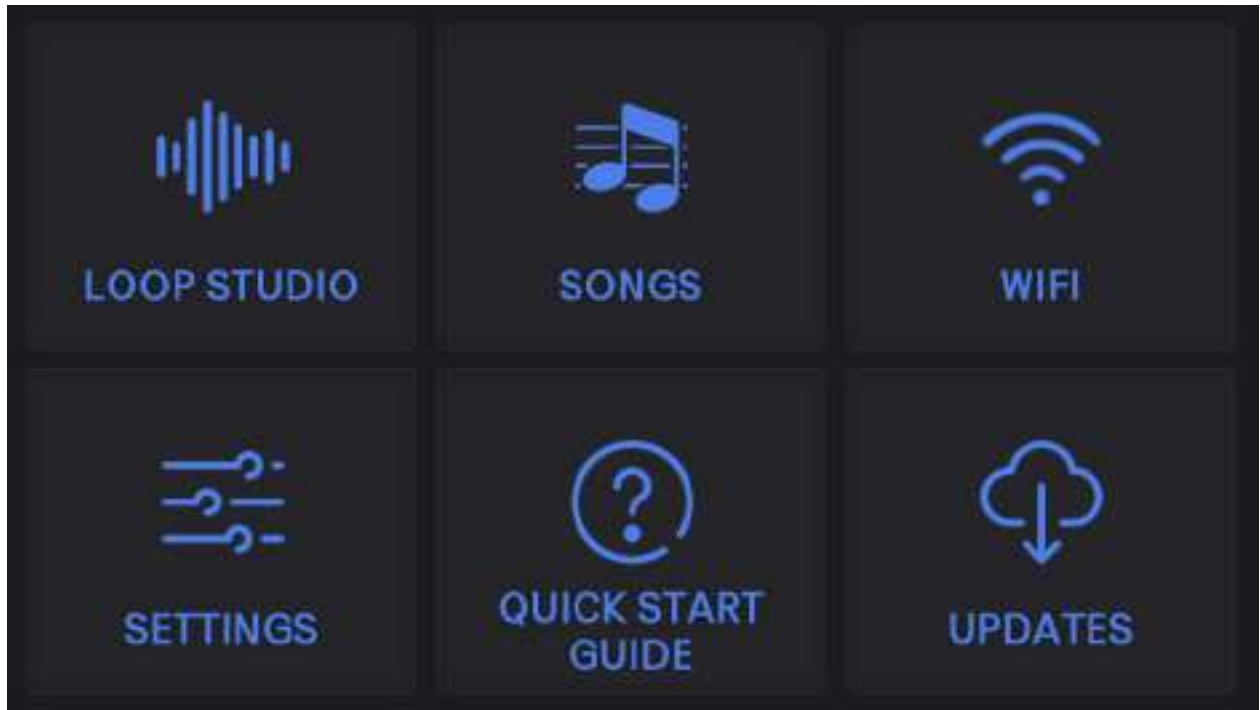


Note: The on-screen labels only show the single press commands. Hold commands and double tap commands do not change, and therefore do not need labels. These commands are discussed in “2x2 Controls” and “6x6 Controls”.

Navigating Your Aeros

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).

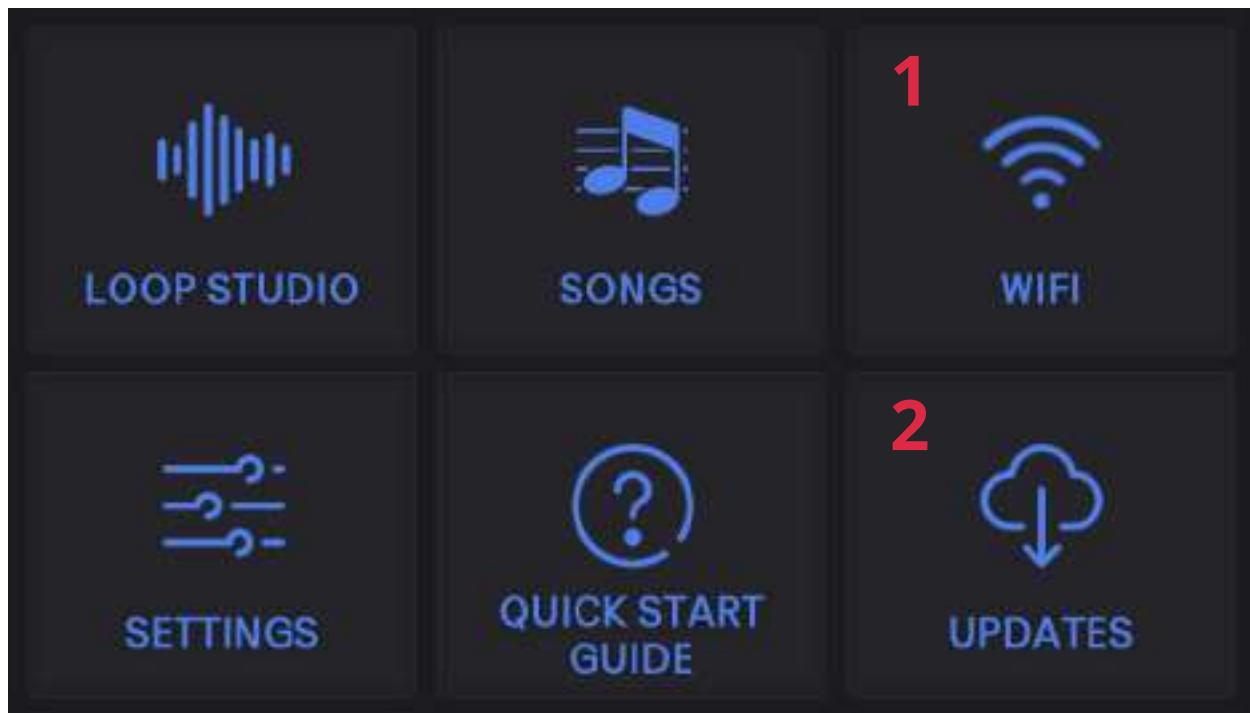
QUICK START GUIDE - Familiarize yourself with the basics.

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

Setting up for the First Time

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 (once the Aeros is connected to WiFi on power up, it should notify you of a new available live version)



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. *Having issues? Read [pg. 34](#) in General Tech Information for troubleshooting info.*

You can also update/downgrade the Aeros using an SD card (MDOS Fat32 formatting is necessary, class 10 is recommended). **Note: Your SD card CANNOT be a micro-SD in a converter, micro-SD cards DO NOT function on the Aeros.** Your SD card can be a maximum of 32GB. Simply download the aeros_x.x.x.bin file and edit the name to be "aeros.bin" before adding it to your SD card. Then, you have two choices:

1. Power off your unit, insert the SD, and power the unit back on, the Aeros will update automatically before start-up. WARNING DO NOT insert the SD, then turn off the Aeros, as this corrupts the update file.
2. (If on 3.0.0 or later) Insert the SD, go to downloads menu and hit the update button once it lights up. The Aeros will ask if you want to update, select "Yes". If the Aeros is ON while inserting the SD, a pop-up to update will appear if on the Main menu or updates screen, select "yes" to update.

Your Instrument

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.

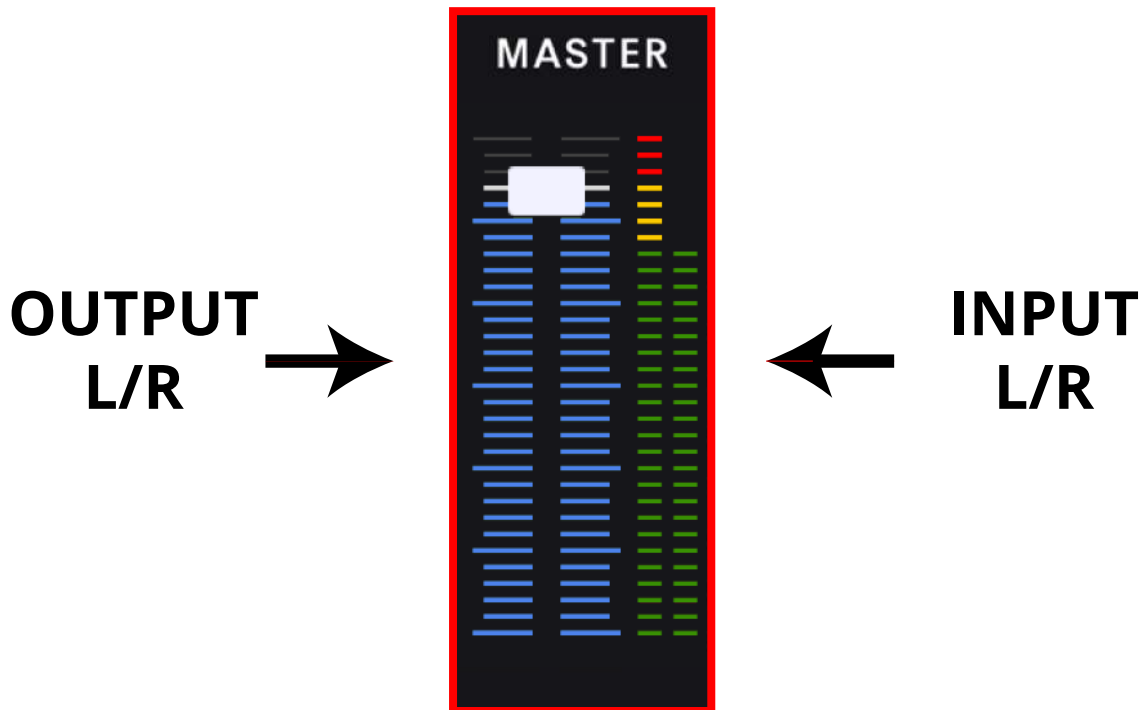
The Aeros also has a stereo Aux In audio input that you can plug an additional instrument into. To record from this source, see the main settings. You must use a TRS (tip-ring-sleeve) cable to achieve a stereo input signal.

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:

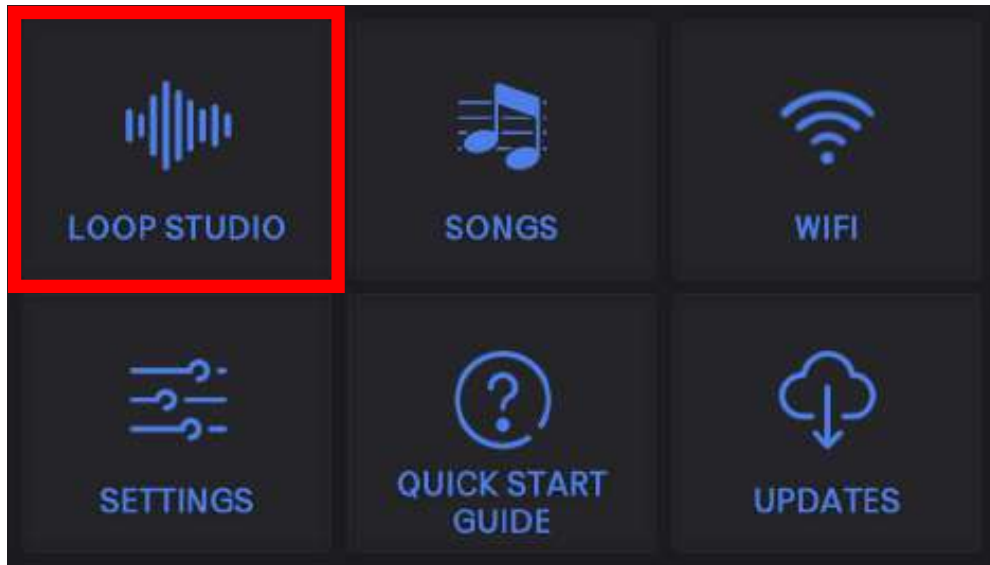
Before you start recording, play your instruments at the loudest expected level in the loop studio. The signal meter will appear on the right side. If the signal reaches the red level, turn down your instrument to prevent clipping. The volume wheel only controls the output level, not the input level.

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.



Starting a New Song

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).

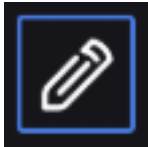
Starting a New Song

STOPPED SCREEN

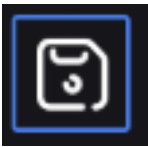


When you go to the Loop Studio, your song will be stopped. From here you can use the footswitches to record a new track or resume playback (if you already have tracks recorded in this song). We discuss these options in 2x2 Controls ([p. 11](#)) and 6x6 Controls ([p. 14](#)).

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



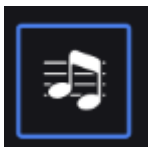
Edit Song (including any of the song-specific settings)



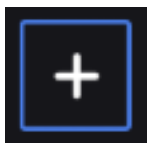
Save Song



Home Page



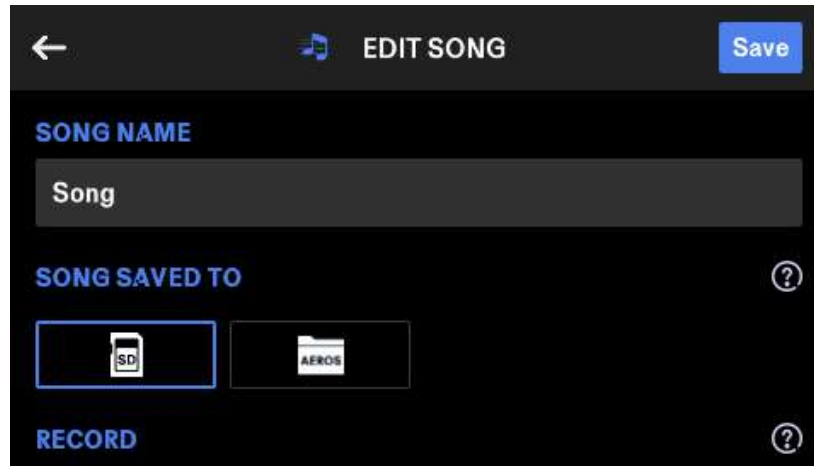
Song List



New Song

Starting a New Song

NEW SONG PAGE

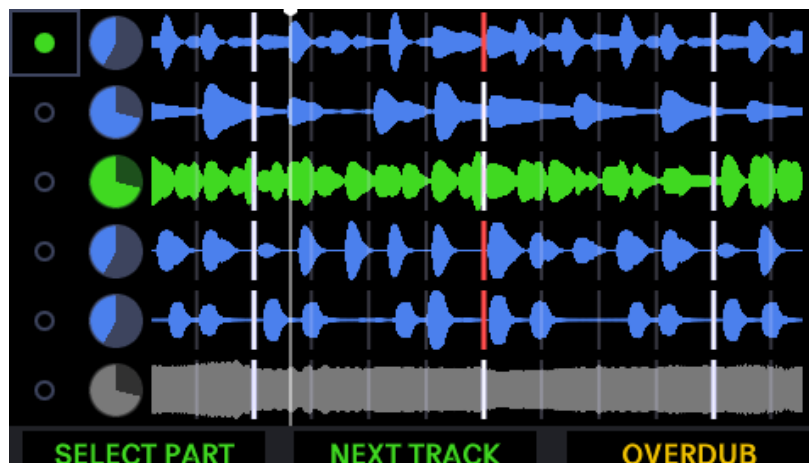


There are many settings available when creating a new song, press the (?) icon on the far-right for an explanation of the setting. We discuss these options in the [“SETTINGS”](#) section of this manual. The default settings work for most people, and you can start looping right away without changing anything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



Starting a New Song

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.

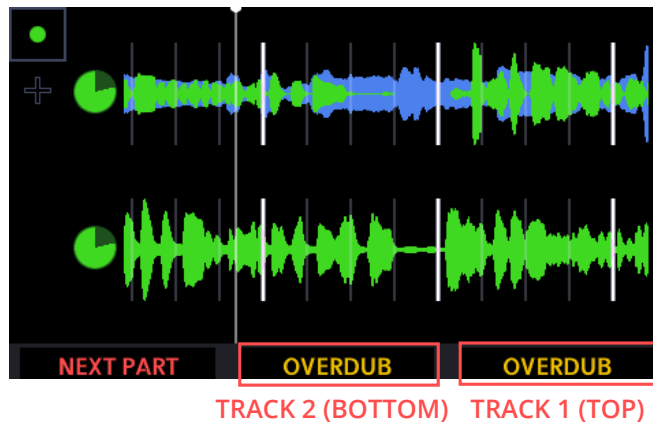
We recommend you try both modes and see what fits your style, or master both to get the most out of your Aeros in any situation!

2x2 Controls

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. The buttons have two possible modes RPO (record, play, overdub) and ROP (record, overdub, play). This can be set in the Device Settings menu (see Settings [pg. 27](#)). RPO is the default setting.



RPO SINGLE TAP:

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

ROP SINGLE TAP:

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

DOUBLE TAP:

- Mute (happens immediately, End of Measure or End of Loop. See page [27](#) for mute settings)
 - Single tap to unmute

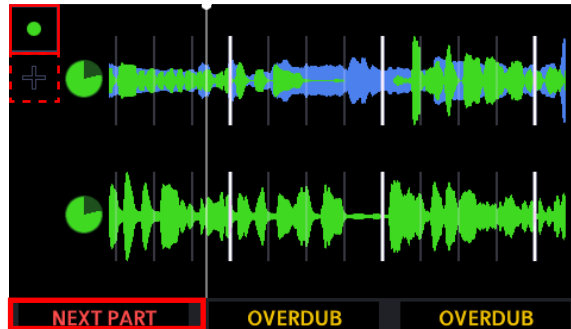
HOLD:

- 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)
- (While recording) Cancels and undoes the recording on current track. If Sync Length is on (see Song Settings [pg. 24](#)) Aeros will add silence to meet the length rules. If in quantized mode, the track will undo and add silence at the next measure, if in freeform mode it will do so immediately.

2x2 Controls

Overdubs: Overdubs are additional layers of recordings on top of the original track. You can have unlimited stacked overdubs, but each new overdub layer 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. *Please note: the single overdub layer **does** contribute to total memory used in a song. Read more about overdubs in General Technical Information [pg 37](#).*

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.

2x2 Controls

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.

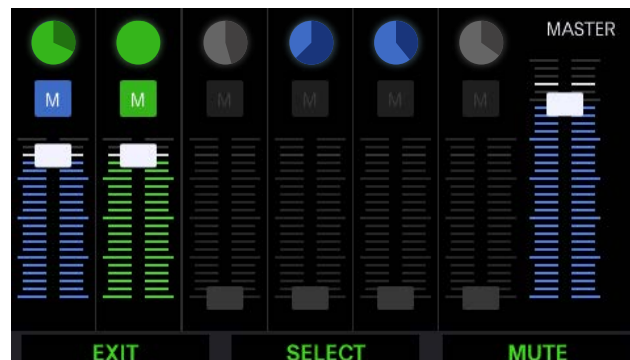
VOLUME WHEEL

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.



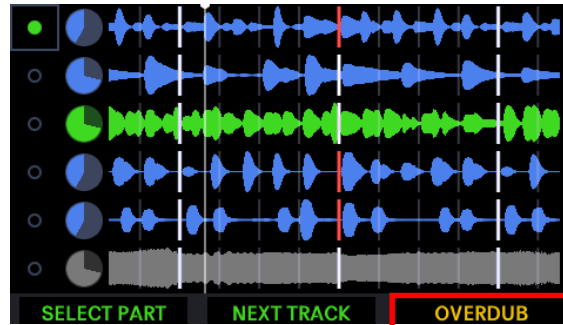
If no tracks are muted, selecting the master track from the mixer view will give option to “Mute All”. If at least one is muted, the option will be to “Unmute All”.

6x6 Controls

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

TRACK BUTTON

The Track Button (lower right) executes actions on the selected track or song part. Selected items are indicated by green color. The Track Button has two possible modes RPO (record, play, overdub) and ROP (record, overdub, play). This can be set in the Device Settings menu (see Settings pg. [27](#)). RPO is the default setting.



RPO SINGLE TAP:

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

ROP SINGLE TAP:

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

DOUBLE TAP:

- Mute (happens Immediately, End of Measure or End of Loop. See [page 27](#) for Mute settings)
 - Single tap to unmute

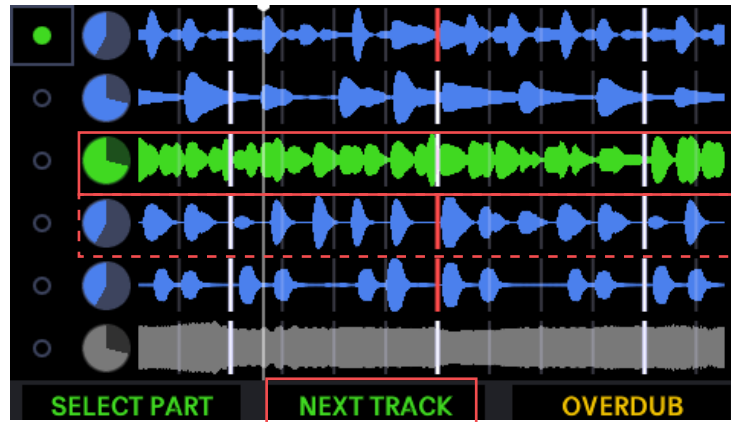
HOLD:

- 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)
- (While recording) Cancels and undoes the recording on current track. If Sync Length is on (see Song Settings [pg. 24](#)) Aeros will add silence to meet the length rules. If in quantized mode, the track will undo and add silence at the next measure, if in freeform mode it will do so immediately.

Overdubs: You can have unlimited stacked overdubs, but each new overdub layer 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. *Please note: the single overdub layer does contribute to total memory used in a song. Read more about overdubs in General Technical Information [page 37](#).*

6x6 Controls

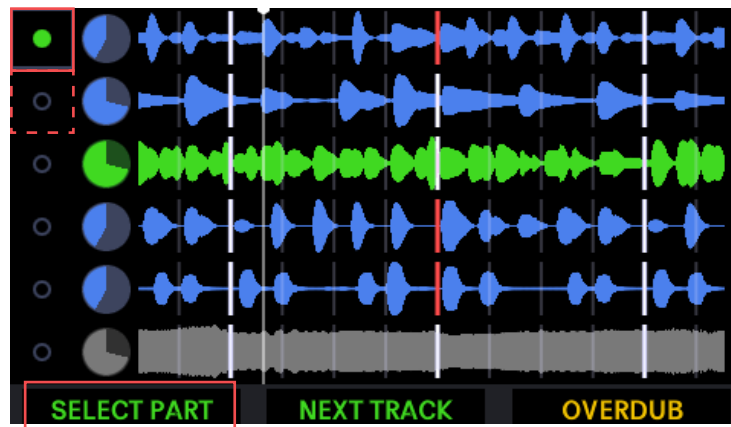
NEXT TRACK



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 Track 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 Track Button will begin a new recording on that song part.
 - If the selected song part already has a recorded track, the Track Button plays the song part.

HOLD:

- Opens the Mixer

6x6 Controls

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 Track 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.

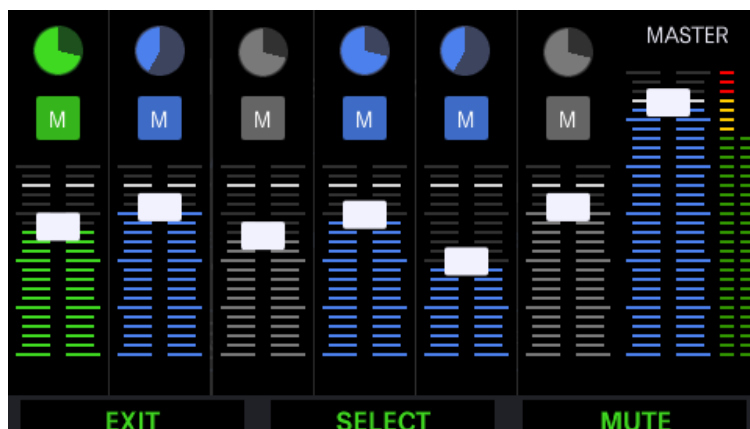
6x6 Controls

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.

Mixer

To open the mixer, hold the NEXT PART button or tap on the last track clock on the Loop Studio screen.



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. Exit mixer hands-free by pressing the bottom left button. The same track you have selected in the Loop Studio screen will be selected when you open the mixer. Opening the mixer does not stop the song.

Note: The fader head will turn blue when placed at 0dB.

Mixer

LOCKED TRACKS

A locked track will continue to play even when a song part is changed. Any change you make to this Locked Track will be shown in all parts, which means overdubs, undo/redo, mute, volume changes, rerecords, and pretty much any change that you can make to a track will be shown in all parts on that same track.

Tracks can be pre-locked, meaning the tracks can be locked before actually recording.

There are two ways to lock a track

- On the touchscreen, press the track clock circle from either the mixer or the Loop Studio screen. You will see a white square appear around the circle, indicating that the track is locked.
- To lock/unlock a track hands-free, in the mixer page, hold down the lower-left button to change the command of that button to "Lock". Tap the button (not hold) to lock the selected track. To revert the Lock Track command back to the 'Exit Mixer' command without locking a track, hold the lower left-button down again.

Locked track rules:

- In 2x2, you can only lock the top track. In 6x6 you can lock up to 5 tracks and you can only lock a track if the tracks before it are locked.
- You can only lock tracks before recording a second song part
- If tracks are locked before recording them, you must record all locked tracks before changing song parts.
- While STOPPED with the empty part icon (+) selected, you cannot toggle through locked tracks, the selected track is the next empty track in this new part.
- You cannot lock tracks using the touchscreen if the current song part is not selected or while transitioning to a different song part.



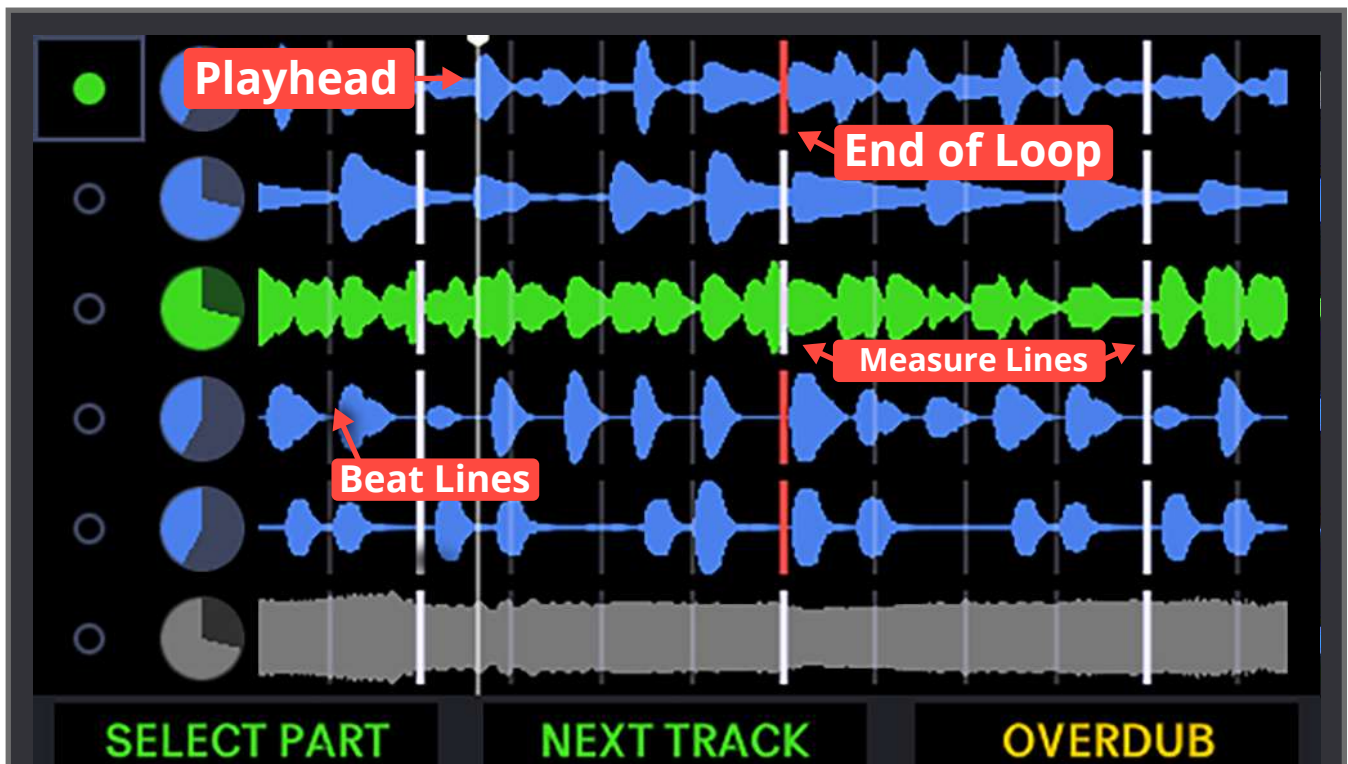
In this image, the Aeros has the top track, Track 1, locked. That means it will be in every song part. All changes made to the track will be reflected in every part of the song.



Closeup of locked track clock.

Colors & Icons

TIMING



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




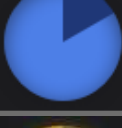





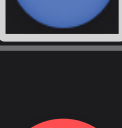
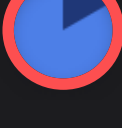
Colors & Icons

TRACK WAVEFORMS

 A red waveform icon representing a track that is currently recording a new track. The waveform is bright red and shows a typical audio signal shape.	<p>Red Waveform: Currently recording new track</p>
 A green waveform icon representing a track that is currently selected. The waveform is bright green and shows a typical audio signal shape.	<p>Green Waveform: Currently selected layer</p>
 A blue waveform icon representing a track that is currently playing but is not selected. The waveform is bright blue and shows a typical audio signal shape.	<p>Blue Waveform: Layer is currently playing, but is not selected</p>
 A yellow waveform icon representing a track that is currently recording an overdub. The waveform is bright yellow and shows a typical audio signal shape.	<p>Yellow Waveform: Currently recording overdub</p>
 A gray waveform icon representing a muted track. The waveform is gray and shows a typical audio signal shape.	<p>Gray Waveform: Muted track</p>
 A faded blue waveform icon representing a track that is undone. The waveform is a darker shade of blue and shows a typical audio signal shape.	<p>Faded Waveform: Layer is undone. Undone layer can be brought back or overwritten</p>







Colors & Icons

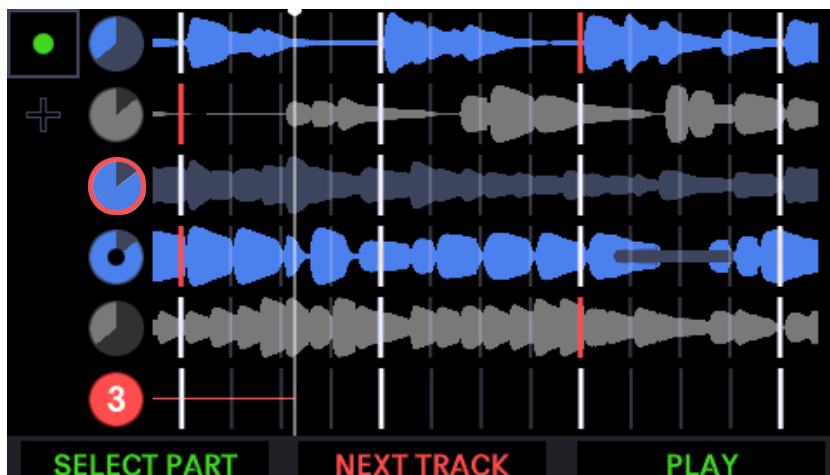
TRACK CLOCKS

	<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: Indicates the base track while recording (current longest track in a song part) if Sync Length setting is enabled see pg 25. This is to show which track is setting the length rules.</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>Clock with white border: This track is locked</p>
	<p>Flashing red outline: Next Part/Stop All command enacted with Change Song Part/ Stop All set to End of Loop (See pg. 27), 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 (see pg 25). This is to show which track is setting the length rules.</p>

Colors & Icons

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
	Plus sign: Select to start new song part
	Flashing red plus sign: new song part is cued and will start recording soon



Settings

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

SETTINGS

Sync Track Features

- **Definition: “Base Track”:** The current longest loop in the song part when in Quantized mode. In Freeform mode (non-quantized), the base track is the shortest loop in a 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). A new track recording can be started at the beginning of the next measure in Quantized mode, or immediately in freeform, so this feature 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 longest track loop in the song part.

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. This only refers to quantization of the start and end of loops to the measure, the Aeros does not alter recorded audio and correct it to be in time.

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.

Settings

DEVICE SETTINGS

The following settings are found in the Settings menu which can be accessed from the

Main Menu start up screen. All default settings will be marked with an asterisk (*).

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

- Main In*
- Aux In

Note: There must be 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 both:

- Main Out
- Aux Out*

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

- 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

Settings

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. (Default value is 50)

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)*

Cancel Recording: If enabled, this setting allows the user to cancel the current recording or overdub by pressing the Play / Stop All button. This is helpful to quickly undo a track while recording using only one tap instead of holding the Track ROP button. The layer of the current recording will be immediately undone so a re-recording can be initiated immediately by using the track's (RPO/ROP) button.

Stop Song: This controls when the Aeros stops playback after pressing Stop All. If End of Loop is enabled, playback will stop at the end of the longest loop in the song part. If End of Measure is enabled, Freeform songs will stop at the end of the longest loop in the song part, and Quantized songs will stop at the end of the measure. If Immediate is enabled, both Freeform and Quantized songs will stop immediately.

- Immediate
- End of Measure*
- End of Loop

Change Song Part: This controls when the Aeros song parts change after a transition is initiated. If End of Loop is enabled, the song parts will change at the end of the longest loop in the song part. If End of Measure is enabled, Freeform songs will change parts at the end of the longest loop in the song part, and Quantized songs will change parts at the end of the measure. If Immediate is enabled, both Freeform and Quantized songs will stop immediately.

- Immediate
- End of Measure*
- 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.

Settings

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.

Track Button Action: Chooses the order of commands when pressing the Track Button.

- RPO: Record, Play, Overdub*
- ROP: Record, Overdub, Play (this is preferred by soundscape looping artists to capture the 'tails' of loops)

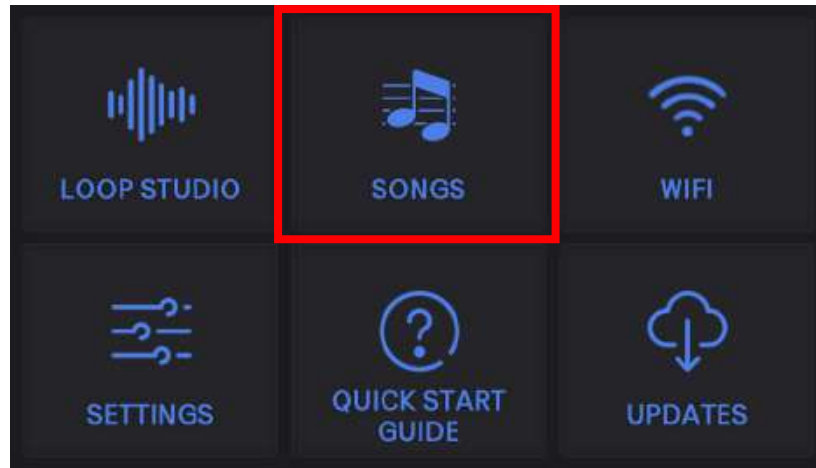
MIDI IN Channel: Sets the MIDI channel that the Aeros is listening to. Choose either All or an individual MIDI channel (1-16). Default is All channels.

MIDI OUT Channel: Sets the MIDI channel that the Aeros sends MIDI commands on. Choose from MIDI channels (1-16). Default is channel 1.

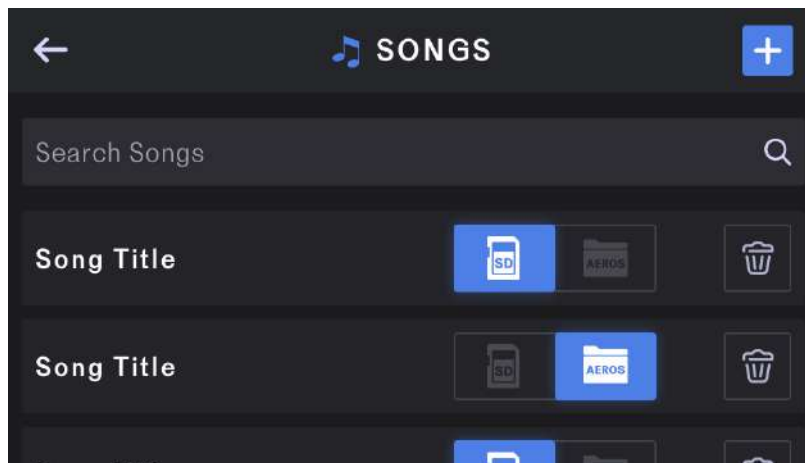
Hit "Restore Default Settings" to reset Aeros to factory global settings.

Loading and Exporting Songs

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 (the currently open song cannot be deleted from the Songs List).

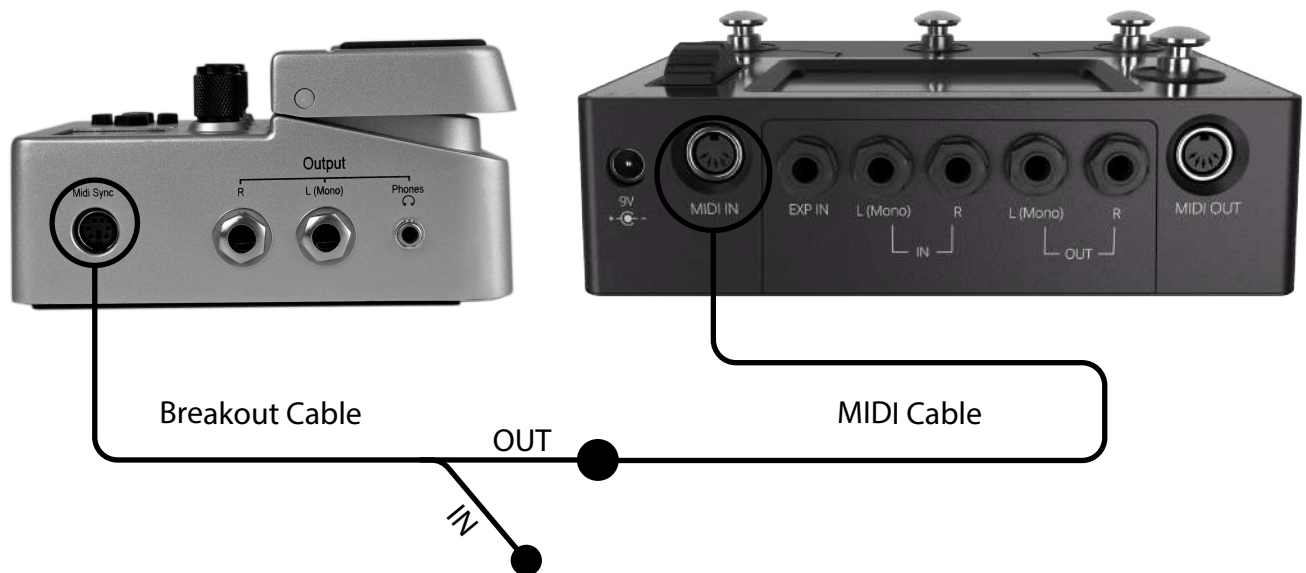
BeatBuddy Integration



Your Aeros Loop Studio has built in plug and play functionality with the BeatBuddy, our hands-free drum machine pedal. Currently the 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 Receiver, BeatBuddy as Transmitter

To use the Aeros as MIDI receiver or '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.



BeatBuddy Integration

Make sure you have updated your BeatBuddy to the latest firmware (3.8.0 or later). At this point your pedal 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 (with default settings) 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.

BeatBuddy Integration

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 the 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.

MIDI Compatibility

The Aeros (as of firmware 3.1.18) can respond to several MIDI messages that enhance the player experience.

The Aeros default is set to respond to MIDI messages sent on ALL channels. This can be changed in the Device Settings menu (See Settings [pg. 27](#)). You have the choice of the Aeros listening to all channels, or to an individual channel (1-16). 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, this is known as MIDI Thru. Currently, the 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. Note: MIDI clock can cause issues if you open a pre-recorded song that has a different internal tempo. Always make sure your MIDI Clock signal BPM matches the Aeros internal BPM (because Aeros cannot change BPM once the first track is recorded).

Time Signature: This is sent by the BeatBuddy whenever a new song (different than the song currently open) is loaded on the BeatBuddy, it is sent as a Sysex 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

5/4: F0 - 7F - 7F - 03 - 02 - 04 - 05 - 02 - 18 - 08 - F7

3/8: F0 - 7F - 7F - 03 - 02 - 04 - 03 - 03 - 18 - 08 - F7

6/8: F0 - 7F - 7F - 03 - 02 - 04 - 06 - 03 - 18 - 08 - F7

Note: The "number of MIDI clocks in a metronome click" (18) and "number of notated 32nd notes in a MIDI quarter note" (08) are never used by the looper.

Save Song - CC:33, value 0

- Saves the song from the Loop Studio Screen or the Song Settings Menu.

New 2x2/6x6 Song - CC:34

- Value 0: Starts a new 2x2 song (same settings as previously loaded 2x2 song) and enters the Loop Studio.
- Value 1: Starts a new 6x6 song (same settings as previously loaded 6x6 song) and enters the Loop Studio.

Songs List/Loop Studio - CC:35

- Value 0: Goes to Songs List.
- Value 1: Goes to Loop Studio screen (if already in Loop Studio screen, is ignored).

MIDI Compatibility

Scroll Up/Down (Songs List) - CC:36

- Value 0: Scroll down list (songs list, or otherwise if relevant).
- Value 1: Scroll up list (songs list, or otherwise if relevant).
- Value 2: Select (currently highlighted item in song list).

Undo/Redo (1 layer) - CC:37

- Value 0: Undo/Redo currently selected track (6x6 mode).
- Value 1-6: Undo/Redo track (track # = value #).

Mute - CC:38

- Value 1-6: Mutes/Unmutes track (track # = value #).
- Value 0: Mutes all tracks.
- Value 127: Unmutes all tracks.

Solo and Stop - CC:39

- Value 1-6: Solos track (track # = value #). This behaves like a XOR solo function, only one track can be soloed at a time in a given song part.
- Value 127: Un-solos track, this unmutes all other tracks in song part.
- Value 0: Stop all playback immediately.

Record New Part - CC:40, value 0

- Record new song part.

Record New Track - CC:41, value 0

- Record new track.

Next Part - CC:102, value 0-127

- 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.

Change Part - CC:113

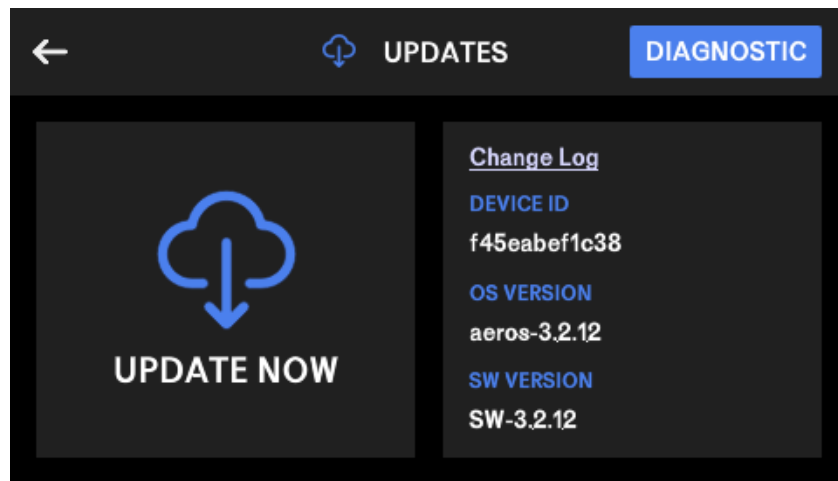
- Value 1-6: Begin the transition to part (part # = value #) according to the Change Part setting (immediately/End of Measure/End of Loop). If using the BeatBuddy, the CC:102 command will override this command. If the part doesn't exist in the song, the Aeros will ignore the command.
- Value 101-106: Begin the transition to part (part # = value # minus 100, so value 102 is part 2) according to the Change Part setting (Immediately/End of Measure/End of Loop). If the part doesn't exist in the song, the Aeros will ignore the command. This allows you to send a single on-press command for changing parts. This also allows you to switch the part on the Aeros without switching parts on the BeatBuddy (which ignores values 101-106).

Screenshot - CC:127, value 127 will save a screenshot of the current Aeros screen to the SD card. Note: must have SD card inserted in Aeros.

Currently, the Aeros does not generate it's own MIDI clock or MIDI commands. This feature is coming soon. You can currently set the Aeros MIDI OUT channel from 1-16, however the feature won't do much right now.

General Tech Information

WIFI UPDATES AND TROUBLESHOOTING

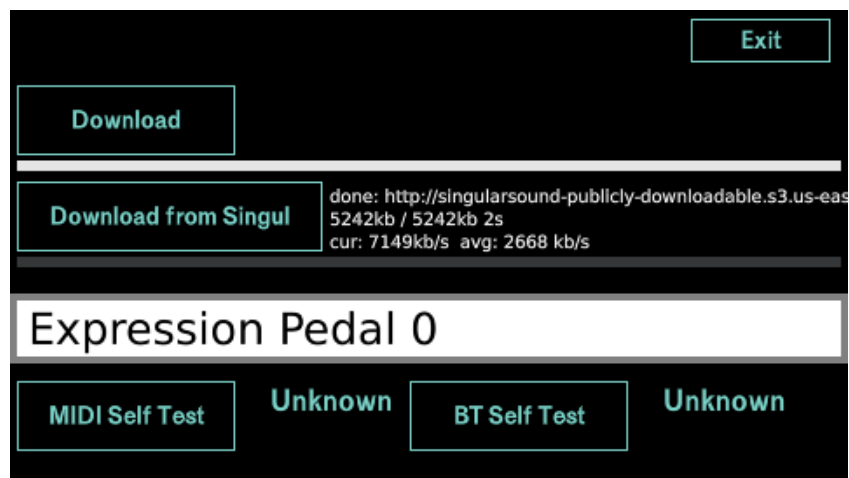


If a firmware update is available via WiFi, the Update Now button will light up and be clickable. Once the update has downloaded, the Looper will do a "checksum" or a doublecheck that the file it downloaded matches the one it grabbed from the internet. The checksum is finished once you see a green, clickable box that says "Reboot". Either press the button or power cycle your looper to start the update.

If there is an issue, the Looper will ask you to retry the download.

Having download issues? Try the WiFi diagnostic test. You can find this by pressing the "Diagnostic" button on the Updates screen. Once on the diagnostic screen, press "Download from Singul" to download a test file that will give us some idea of the speed and connectivity your Aeros is experiencing.

Take note that on average the Aeros should report about 500-2000kbps.



General Tech Information

Some possible HTML Error codes are as follows:

- **Host not found** = Error 404, file not found
- **Connection refused** = Server is down or not found
- **Connection closed** = Connection was lost during transfer (closed by server)
- **Socket operation timed out** = Timeout on the communication (slow connection)
- **Proxy requires authentication** = Could be a WIFI setup issue
- **Host requires authentication** = Should not happen since our host does not require authentication
- **Data corrupted** = Could be due to faulty WIFI
- **Unknown protocol specified** = Should not happen
- **SSL handshake failed** = SSL error, could be certificate issue
- **Too many redirects** = The website keeps being redirected between different addresses in a way that will never complete. (not sure when this could happen)
- **Insecure redirect** = Related to HTTPS or SSL, not sure what would cause this
- **Error transferring** = also a file not found issue on server

Want to know your Aeros IP address? Simply tap the WIFI header five times (5x) and it will show. It will hide once you leave the WIFI page and return to it.

[Report your errors to our forum!](#) Or email us at support@singularsound.com

MIDI and Bluetooth Self Test

These are tests meant for internal testing and testing done by the manufacturer, if you'd like to try them here are the steps:

MIDI Self test - requires one Male to male 5-pin MIDI cable that is connected to both the MIDI In and MIDI out ports of the Aeros, forming a MIDI loop. Do not connect any other devices to the MIDI chain, the Aeros should only connect to itself. Once connected properly, the Aeros should pass the test once the MIDI Self Test button is pressed.

Bluetooth Self Test - Requires a phone or device capable of sending a Bluetooth scanning signal. Any Bluetooth scanner app should work. As soon as the app or device is actively scanning, the Aeros should pass the test once the BT Self Test button is pressed. Note: If you have a MIDI Maestro, if the MIDI Maestro is in pairing mode, this counts as a scanner signal and the Aeros will pass the test.

General Tech Information

OTHER TECHNICAL INFORMATION

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.

- The overdub layer is only as heavy as a base layer of the same length, recording many revolutions of overdubs will not add to the total memory used.
- Overdubs do take up memory, the memory used cannot exceed the amount of memory used to record on that corresponding base track. Keep in mind that an overdub cannot have more than one layer.

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.

- When adding a new overdub, there is one exception to the current overdub layer being merged to the base layer:
 - If the overdub layer is activated again before the track's loop has started over, the written overdub layer will be reactivated and the new overdub audio will continue to be written in the same overdub layer.
 - Basically, you need to wait a whole revolution of a track's loop before you can make a new overdub that will merge the previous overdub layer.

Muting: Muting in the Loop Studio can be done in the following ways:

- With a double tap of an Action button (see Double Tap in 2x2 on [pg.11](#) or Double Tap in 6x6 on [pg.14](#))
- By using a MIDI mute command. If the Aeros is set to stop and does not stop immediately, a mute command sent after will still take effect following the mute settings (see Device Settings [pg. 27](#)). If the mute command is sent before the stop command, it will still take effect. Double tap to stop immediately will cancel the set up mute command.
- Another immediate mute command can also be found in the Mixer page, the rightmost button mutes and unmutes the selected track. Using the touchscreen, the clickable "M" found on each track will mute/unmute the corresponding track when tapped by your finger.

General Tech Information

Undone Track Logic:

- Undone layers that are re-recorded to are trashed by the Aeros, this is similar to deleting an unwanted track or overdub layer.
 - If the undone layer is an overdub layer, then recording another overdub trashes the undone overdub layer.
 - If both the base and overdub layer are undone and you re-record, then both the undone base layer and the undone overdub layer are trashed.
- If a track is undone, then it will behave as though the track is empty in most cases.
 - One exception is that an undone track will not automatically start recording after receiving the Next Track command. First you must select an undone track and hit 'Record' on the Action button to start the re-recording

Lock Track Logic: A locked track will play back identically in all parts. All changes made to the track will be made to that track in every part. You can pre-lock your tracks in an empty song to plan which tracks will lock. In 2x2, you can lock the top track. In 6x6, you can lock up to 5 tracks. Tracks can only be locked/unlocked in the first song part, they cannot change state once more than one song part has been recorded to. Learn more about this on [page 19](#)

General Tech Information

Deleting Last Part: While Aeros is stopped on the Loop Studio Screen, using the touchscreen, you can tap on the Song Part circle of the last song in the current open song. This will pop up a dialog to delete the last part, hit “Yes” to confirm. Note: This is NOT undoable and will delete the .wav files present in this song part.

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.)

The Aeros Song Folder (on SD): The Song folder will include the WAV files separated by input and by part and the .meta file that allows the Aeros to use the WAV files. The .meta file is hidden and must be shown in most cases to be seen. Deleting / altering the .meta file can make the WAV files in the song folder unreadable by the Aeros, this must be avoided or all saved song data could be lost, meaning the Aeros will not show the song when the SD is inserted.

Exporting WAVs via SD: When a song is saved to SD, the WAV files will be present in a folder with the same name as the song on the Aeros. The WAV files can be extracted from the folder for use within a DAW. NOTE: The Aeros adds **360 samples/frames in 44.1kHz** to every loop in order to improve fade out popping, in order to use the loops as heard on the Aeros, you must remove the 360 samples from the **end** of the WAV file.

Cutting 360 samples from your files:

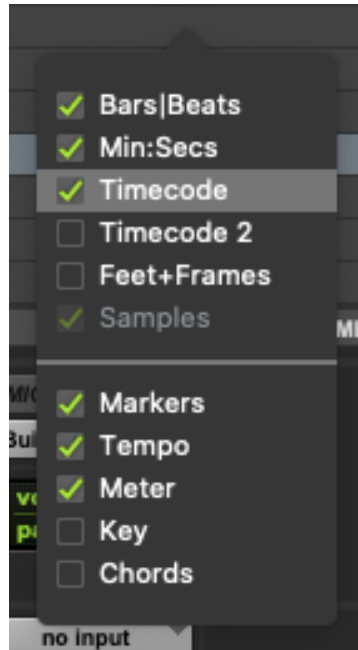
In Pro Tools:

Make sure your Pro Tools session has a sample rate of 44.1kHz. Then, set the main timeline to be based on samples.



General Tech Information

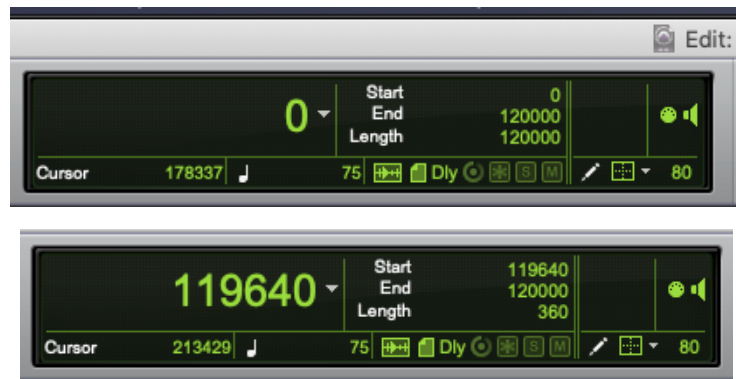
If you do not see the samples timeline, you may need to activate it to make it visible.



With the grabber tool, select the audio clip(s) you wish to cut the samples from. Then reference the Transport to see the length of the selection in samples. Simply take note of the start and end points of your selection, and remove 360 from the endpoint.

For example:

My audio is 120,000 samples long (this may seem long but remember there are 44,100 samples every second). I do some quick math to find out my start point would be $120,000 - 360$ which is 119,640 samples. So I set my start point to be 119,640 samples. I can check my work by confirming the selection length is 360 samples. Then, simply delete the selection from the clip.



Another method for cutting the audio files is [explained by a user on the forum here](#).

General Tech Information

Sound Quality: 32-bit floating point processing, 24-bit recording, 44.1kHz sample rate, professional DACs, <3 ms latency, and 20hz – 20kHz range

Digital dry through bypass: Aeros does not affect the pass through audio quality, 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](#)

General Tech Information

Cross fades: 8ms fade out and crossfade between song parts is done automatically to prevent sound 'pops' if audio is recorded over the loop seam.

Mixer Volume Faders: Each volume fader has a fader head, the position of the fader head tells you the added/reduced gain level of the current selected track. At 0dB, the track's volume is not being changed, the fader head will be blue at 0dB.

- If using the volume wheel, the fader head will "stick" at 0dB for 4 ticks of the volume wheel in the same direction for 800ms of delay between "sticking" to 0dB and moving the volume wheel again. If you reach 0dB and change directions on the wheel, it will not "stick".
- If using the touchscreen, the fader head will snap to the 0dB line if within ± 3 dB from 0dB.
- The fader can move by increments of 0.25dB when using the fader wheel, each tick is ± 0.25 dB.

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.)

Input Impedance: Switchable between 1M Ω (Instrument) and 50k Ω (Line level)

Output impedance: $\sim 100\Omega$

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.

Changelog

Firmware 3.5.1 Changelog:

- **Optimized memory usage of track recording.** Now, up to 20 minutes of mono audio (10 minutes stereo) can be recorded in a track
- **Improved visual waveform gain system** for more consistent relative waveform display sizes
- **Added a new notification when an update is available on server**, check is done periodically when Aeros is not used
- **Added a new setting "Cancel Recording" to allow user to undo recording while recording or overdubbing by pressing Play/Stop All button** (recording and overdubbing will be undone). This is very useful for when a mistake is made and you wish to redo the recording.

Bug Fixes:

- Fixed song naming with mixed upper-case and lower-case issues. Songs can now only be named using Uppercase letters.
- Change Part in loop forgiveness zone with locked tracks, tracks drop out
- Next Track record command sent "on the beat" (loop forgiveness) causing audio desync when using the BeatBuddy
- Previous version song files showing song part icons incorrectly
- Changed when undo is done while in quantized mode from end of measure to immediately. If necessary, adds silence to track to meet sync length rules.

Firmware 3.4.2 Changelog:

- **Add acceleration to the volume wheel to make large volume changes easier** (moving volume wheel faster has a larger effect on volume changes)
- **Factory reset added** to bottom of settings page (Erases All Content and Settings)
- **Don't reset lock tracks settings when clearing a song of recordings.** Allows starting same song over again faster
- **Block all Midi commands except : CC34, 35, 36, 85 and 127 when outside Loop studio.** Prevents unwanted playback when not in Loop Studio
- **Leave Loop Studio with a long press on play/stop button** (when song is empty)
- **Tap touchscreen to select track in mixer without moving volume slider.** This prevents unwanted volume changes when selecting a track. To move volume slider with the touchscreen, tap the slider a second time and drag it to the desired level
- **Low memory warning**

Bug Fixes:

- Error handling when memory is full
- Upcoming tracks not showing in count-in
- Count-in UI labels
- Count-in with midi clock logic
- Overdub/rec drop delay not working at low bpm
- Some button presses are ignored
- Footswitch buttons event logic
- Volume wheel snaps to 0 dB for 800ms when going up
- Increase volume slider 0 dB snap range to ± 3 dB
- UI not syncing when record is cancelled
- Toggling of pending overdub while transitioning part

Firmware 3.3.0 Changelog

- **Better volume control**
 - Volume can now be set to exactly 0 dB
 - Volume slider knob at 0 dB is light blue instead of white
 - Volume slider snaps to 0 dB (at ± 2 dB)
 - Volume wheel more precise (0.5 dB increments)
 - Volume wheel buffer zone at 0dB (ignores up to 4 ticks, active for up to 800ms)
- **Song loading time optimization**
 - Removed smoothing filter on waveform
 - Modified the loading animation
- **Uncouple 'change song part' and 'stop' settings**

Bug Fixes:

- Various improvements to undone track logic

Changelog

Firmware 3.2.12 Changelog

Locked tracks: A locked track will continue to play even when a song part is changed. There are two ways to lock a track: On the touchscreen, press the track clock circle. You will see a white square appear around the circle, indicating that the track is locked. To lock a track hands-free, in the mixer page, hold down the lower-left button to change the command of that button to "lock". Tap the button (not hold) to lock the selected track. To revert the lock track command back to the 'Exit Mixer' command without locking a track, hold the lower left button down again.

- **Locked track rules: In 2x2, you can only lock the top track. In 6x6 you can lock up to 5 tracks and you can only lock a track if the tracks before it are locked.** You can only lock tracks before recording a second song part. If tracks are locked before recording them, you must record all locked tracks before changing song parts. You can only unlock a track if the tracks after it are not locked and you have not recorded a second song part. While STOPPED with the empty part icon (+) selected, you cannot toggle through locked tracks, the selected track is the next empty track in this new part.
- **Pressing the last bottom track circle on the touchscreen opens the mixer page.**
- **Allow clearing the last part of a song when the looper is stopped by pressing the song part dot on the left side of the touchscreen.**
- **Operating system upgrade for improved WiFi connection stability.**
- **Added user download test in Diagnostics screen.**
- **Added error handling and Cancel button when downloading firmware from WiFi.**
- **Lock user in Update page while downloading to prevent errors.**

Bug Fixes:

- Fixed tempo rounding by using floating-point instead of integer
- Fixed tempo shift when MIDI start from BB is used

Firmware 3.1.18 Changelog

- **Added MIDI command responsiveness** for compatibility with MIDI Maestro Aeros Mode (see manual or forum for full list of supported MIDI commands)
- **Added MIDI IN/OUT Channel Select setting**
- **All track actions are now on down-press of the button for more accuracy.** This includes, record, re-record (on an undone track), overdub, play, mute, cancel mute, unmute, cancel unmute
- **Made Next Part command (lower left button) on down-press** (not release) while recording for more precise recording in freeform with 2x2 mode
- **Added Main Setting: Track Action button RPO/ROP.** This allows the track action sequence to either be Record/Play/Overdub (default) or Record/Overdub/Play which is useful for soundscape artists to capture the 'tails' of loops by going directly into overdub after recording
- **Base track for Sync Length setting is now the shortest track** in the song part instead of the longest in freeform mode for additional flexibility
- **Added system to limit audio by hard clipping when merging audio to prevent distortion**
- **Refactored crossfade system** to remove audio pops on audio recording 'edges' in all cases (applies to newly recorded songs)
- **Added sorting by date or title in songs menu** (current sort type saved in memory for next use)
- **Added SD card update dialog** when card is inserted and contains update file (aeros.bin)
- **Allow fast tap on RPO button when recording or overdubbing** toggles between overdub and play
- **Allow undo while recording with hold command of track button or undo midi command.** For quantized songs undo will happen at end of measure. If sync length setting is on, silence is added to the track to make it the proper length.

Bug Fixes:

- Allow saving settings from song edit screen
- Fixed move song to SD crash. Prevent moving of currently loaded song
- Fixed not having clicks in count-in when Aeros is a slave
- Fixed sync start setting following undone track when it is the only track in the song part. Now a new sync start point will be set when redoing the only track
- Removed extra midi tick when starting the looper which was throwing off the sync with certain time signatures
- Fixed solo on empty tracks
- Fixed scrolling song list with wheel
- Fixed click track during count-in
- Fixed MIDI record track when next part is pending
- Fixed MIDI mute/unmute while recording or overdubbing
- Fixed reload of song parameters when MIDI tempo or time signature changes
- Fixed audio pop caused by second overdub layer
- Fixed audio drop and sync issues caused by triggering playback or redo during forgiveness period
- Fixed audio files lost if powering off unit less than 1 second after saving song
- Fixed save to internal memory crash
- Fixed audio pop in freeform ROP
- Fixed MIDI record new track and new part when stopped
- Fixed mixer volume saving when volume is changed by scrolling
- Allow record new track MIDI command while transitioning to a new song part
- Allow pending mute/unmute to take effect when they occur during a stop

Changelog

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,
- **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

Changelog

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

Firmware 2.13.2 Changelog:

- Added basic cross fade on loop seams and fast fade in/out on start/stop to prevent audio 'pop' when making big audio transitions

Fixed:

- Bug that cut off parts of recorded loops
- Bug that kept last song from being saved properly

Firmware 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 (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

Changelog

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

Firmware 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

If you find a bug in the firmware, please report it to us by emailing us at support@singularsound.com

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 file to support@singularsound.com. This will help us understand what happened, and work to fix the issue.