

AEROS

loop studio

使用説明書

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介紹

歡迎使用您的Aeros Loop Studio。準備好來感受這全方位、創新的循環撥放器能量吧!!

重要提示：Aeros使用9v, 300 mA，內負外正電源接頭的變壓器。建議使用原廠附贈的電源供應器，避免不需要的雜訊以及損壞。也強烈建議不與其他產品使用分流串接電源，以避免產生雜訊。若您在使用獨立電源供應器的狀況下還有雜訊問題，請參考第32頁-常用技術資料。

有三種實物方式用來操作您的Aeros：觸碰式螢幕(就跟滑您的手機一樣)，滾輪，以及腳踏開關。

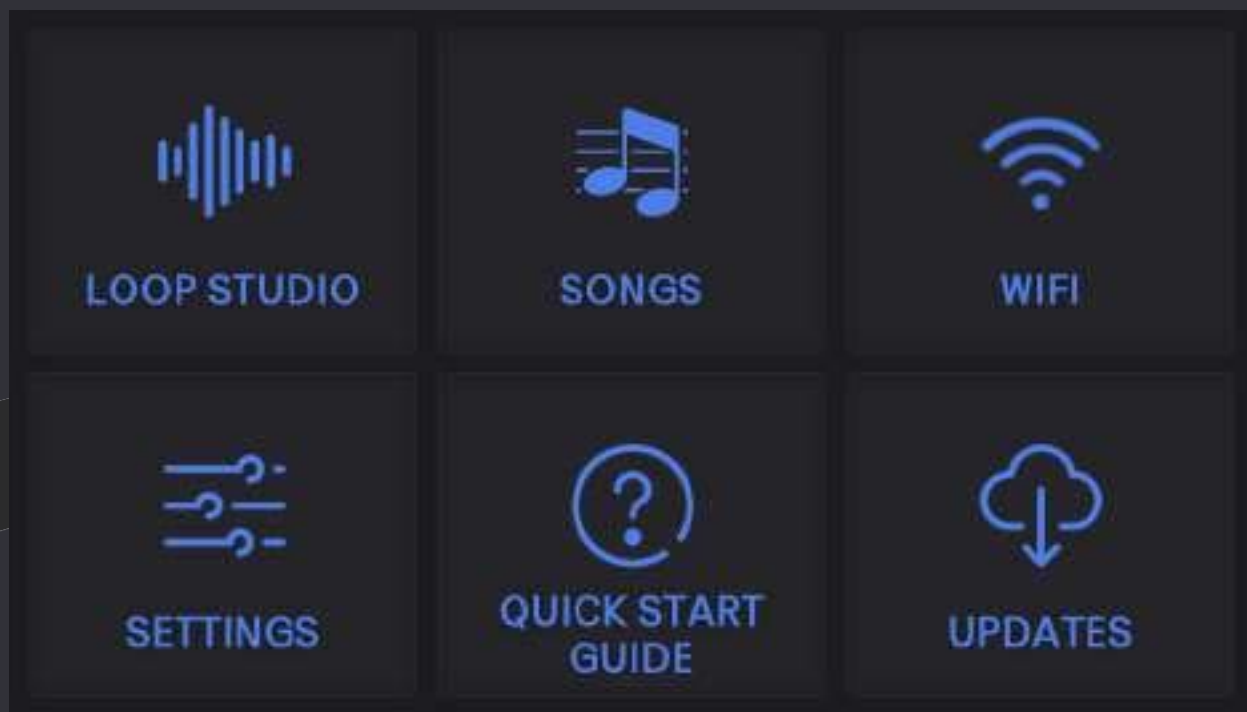
你可以在螢幕上一直看到字體標籤顯示出在現階段腳踏開關的作用是什麼，這在循環撥放時絕對派得上用場的!!在循環撥放模式下，[PLAY/STOP ALL] 的腳踏開關與 [LOOP VOLUME] 滾輪是不會改變其功能性的。

註解：螢幕顯示的字體標籤告知您的是目前腳踏開關“單踩/按”的功能，壓住或是雙踩/按的功能不需要標籤也並不會改變用法。這些功能會在[2x2操作方式]以及[6x6操作方式]裡會再提到。



主螢幕

開啟Aeros後會看到主螢幕畫面，在這兒可以執行下述各種不同的區塊的功能。



LOOP STUDIO – 您的創作就是由此產生的。點選後會自動取回上次所存檔的曲目。

SONGS – 從內部記憶體或是SD卡載入您所存檔的曲目。

WIFI – 連結您的無線網路。

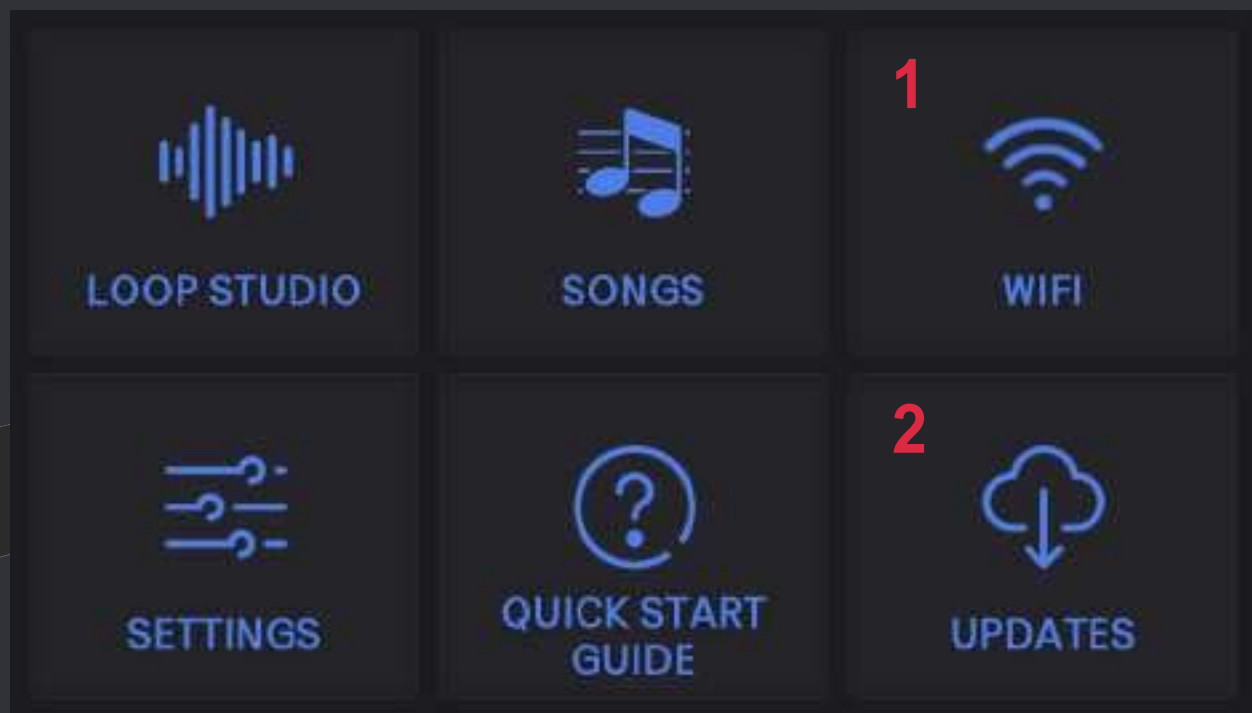
SETTINGS – 改變預設功能，讓Aeros功能更加寬廣(所有曲目皆適用)。

QUICK START GUIDE – 前導，讓您更快速熟悉基本功能。

UPDATES – 韌體更新。檢查是否有最新韌體版本。必須在有無線網路連結的狀況下。

我們知道您已經手癢到想要趕快開始使用Aeros Loop Studio。
但請先完成以下事項：

1. 連接上Wi-Fi
2. 檢查是否需要更新韌體



請試著在任何可以連上Wifi無線網路狀況下檢查“UPDATES”，以確保現在擁有的韌體(Firmware)是最新的功能改善或增加新的功能。我們有持續地更新韌體(Firmware)，所以當您每次使用Aeros的時候，也許會有新的版本已上線。

您可以藉由SD卡更新韌體(Firmware)，需使用class 10規格的SD卡，並以MDOS Fat32格式化。最大容量為32G。

下載aeros_x.x.x.bin檔案後，更改檔案名為aeros.bin”之後再複製到SD卡上。然後您有兩種選擇：

1. 關機後插入SD卡，然後再開機，Aeros會自動更新。警告!!開機狀況下勿自行插入SD卡然後再關機，會造成檔案損毀。
2. (韌體是3.0.0或更新版本)插入SD卡後，到downloads目錄下點按[update]，Aeros會詢問您是否要更新，選擇“ Yes” 即可。

將您的樂器接到 Aeros :

Aeros 有2個 ¼" (6.35mm) 輸入孔，可以錄製立體聲或是單聲道。輸出和輸入一樣，有2個 ¼" (6.35mm) 輸出孔，可以撥放立體聲或是單聲道。

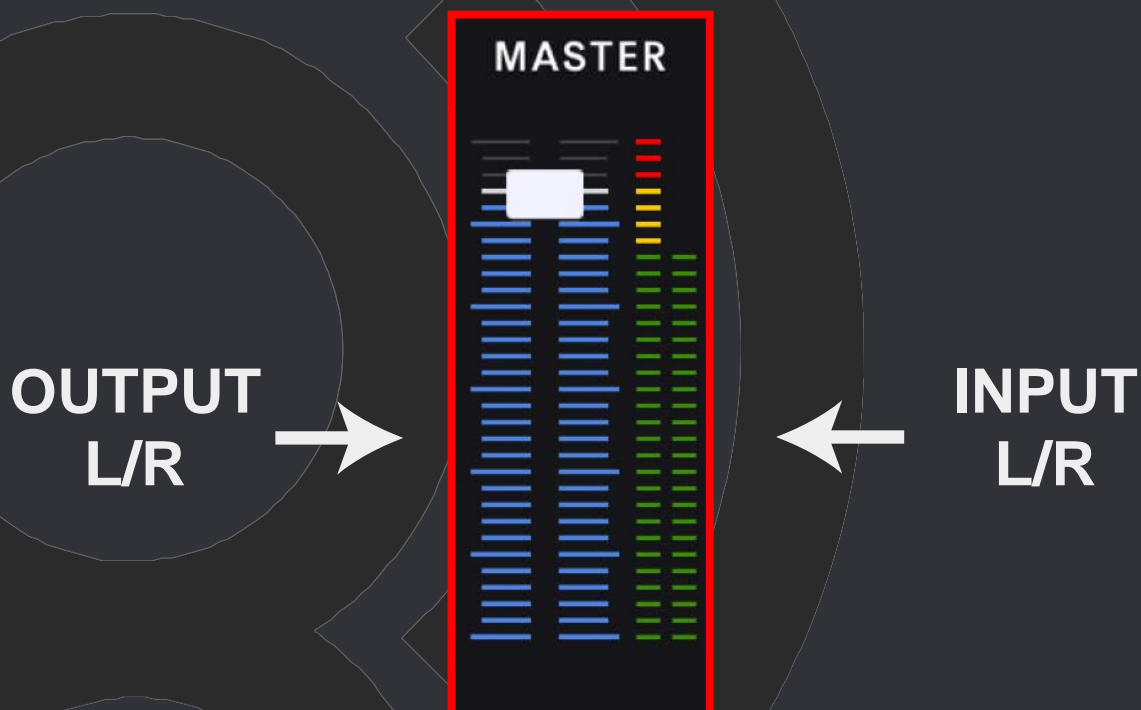
Aeros 同時有立體聲Aux輸入孔，你可以額外增加音源輸入。為了錄製此音源輸入訊號，請看主畫面[SETTINGS]目錄。必須使用TRS(tip-ring-sleeve) 導線來達到錄製雙聲道立體聲的訊號源。

Aeros 並不提供+48V幻象電源給麥克風，若您需要幻像電源去搭配調整您的麥克風，請自備一組麥克風前級(Mic Pre)來做調整。

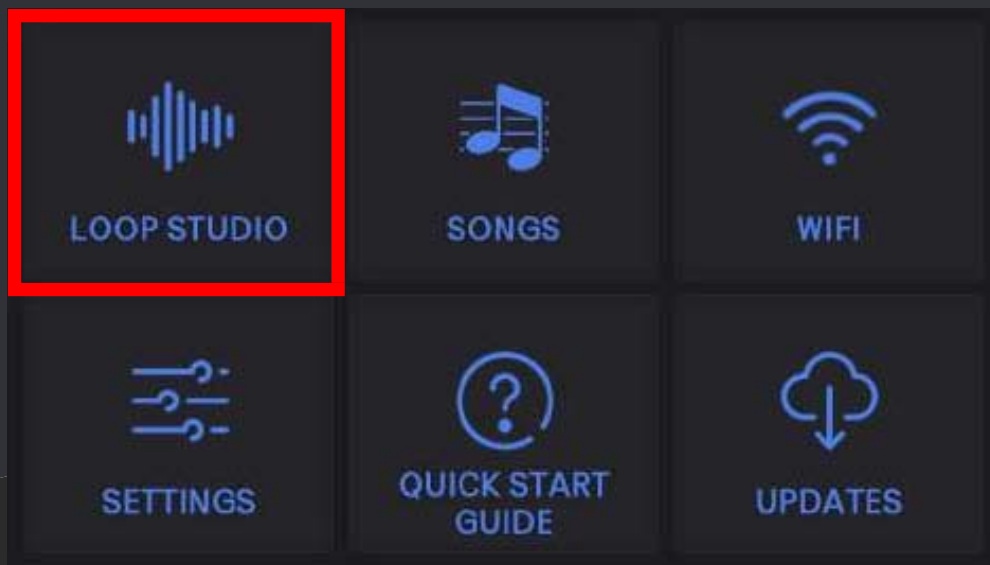
訊號等級(音量)：

開始錄音之前，彈奏/播放您的樂器到音量最大值，您會看到右側會有輸入訊號端的音量值。若顯示到了紅色的區塊，請調降您樂器的輸出訊號端以避免聲音過載而破音。注意[LOOP VOLUME]滾輪是不會改變輸入訊號大小的。

備註：目前右側訊號表頭只有顯示從左/右輸入孔所產生的音量值，並不會顯示從Aux端輸入的音量，這功能往後會更新。



要開始跑循環撥放，在主目錄下請點選 [LOOP STUDIO]圖標，或是踩/按 [PLAY/STOP ALL]腳踏開關。



您上次所存檔的歌曲將會自動載入。(若無已存檔的歌曲，會自動載入一個新的空白檔歌曲)

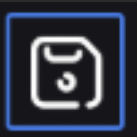
停格畫面



進入 [LOOP STUDIO] 時，歌曲會暫停撥放。此時你可以使用腳踏開關來開始錄新的一軌，或是重覆撥放已錄製好的音軌。(若在這首歌曲裡之前已錄好的音軌) 這些功能會在 [2x2操作方式-第10頁] 以及 [6x6操作方式-第13頁] 裡會再提到。你也可以選取螢幕上不同圖標來執行下述事項：



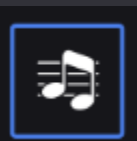
歌曲編輯(包含任何歌曲特定具體設定)



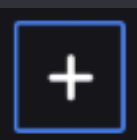
存檔



回到主畫面

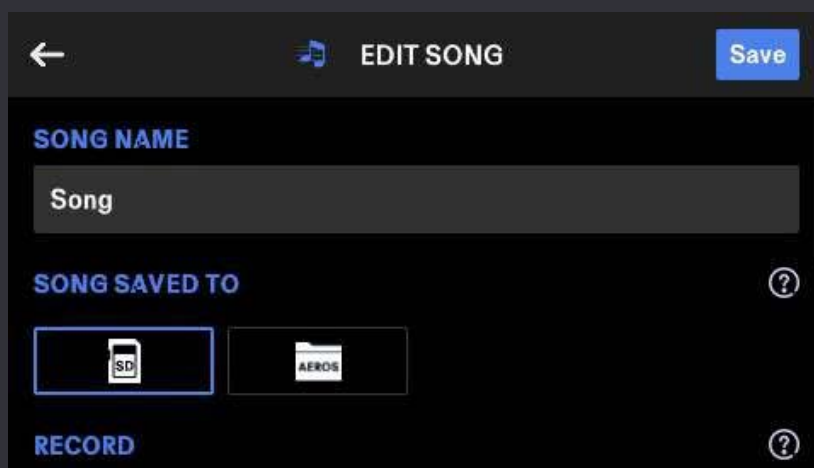


歌曲清單



建立新歌

新歌頁面

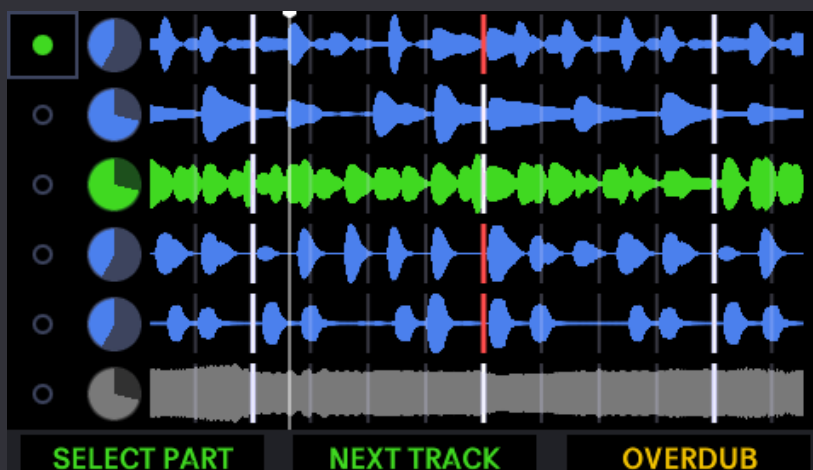


創作一首新的曲子會有非常多種的設定功能，點選最右側(?)圖標，會跟您講解目前此設定功能的細節是什麼。我們有討論貴在 [SETTINGS] 下的功能表設定，原廠設定好的最適合大多數的使用者，所以您無需做任何更改就可以馬上開始撥放循環樂句了。

幾個核心資料讓您知道如何開始：

Aeros Loop Studio 是第一個循環播放器允許並行音軌(不同音軌可以同時撥放)和歌曲區塊(群組或是平行音軌可隨意切換。)

現行所選取的歌曲區塊與音軌圖形會顯示為綠色



有兩種基本模式可以做循環撥放(LOOP)：2x2 和 6x6。

- **2x2**：你可以同時有2個歌曲區段，每個可有2個併行音軌，總共有4軌音軌可以使用。
- **6x6**：你可以同時有6個歌曲區段，每個可有6個併行音軌，總共有36軌音軌可以使用。



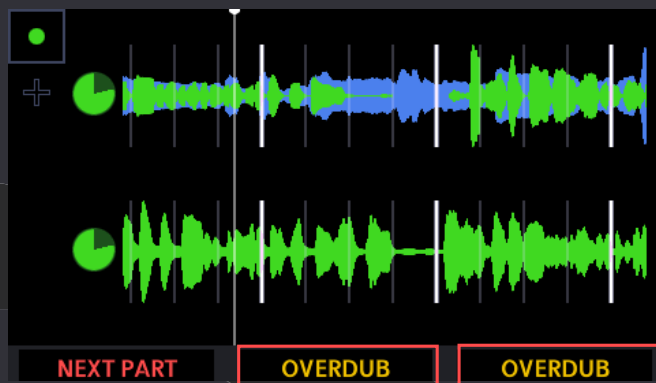
2x2 與 6x6 的操作方式會有些不同

2x2模式下，每個併行音軌有各自獨立的腳踏開關。單踩/按[SELECT PART]鈕就直接換到另一個歌曲區塊，而在6x6模式下，在執行動作之前你必須先選好音軌或是歌曲區塊。建議您先把兩種模式都嘗試過了，看看哪一種是適合您的風格。當然把這兩種模式都精煉完成後，Aeros就可以在任何狀況下使用得淋漓盡致。

2x2模式下，你可以同時有2個歌曲區段，每個可有2個併行音軌，總共有4軌音軌可以使用。

第1軌 和 第2軌

第1軌和第2軌分別由相關的腳踏開關來操作與控制。腳踏開關鈕會有2種模式，ROP(record · play · overdub)或是ROP(record · overdub · play)。可到[SETTINGS]目錄下去做模式的設定(請到第25頁閱覽)。原廠是設定為RPO模式。



第 2 軌 (下面) 第 1 軌 (上面)

RPO 模式 單踩/按：

- 開始錄 (在該軌是空白的時候)
- 播放錄音軌
- 疊軌(Overdub)
- 播放疊軌

雙踩/按：

- 靜音Mute (即時產生, 每小節結束點或是循環區段結束點。關於靜音Mute設定第25頁)
- 單踩/按後解除靜音

踩/按 壓住：

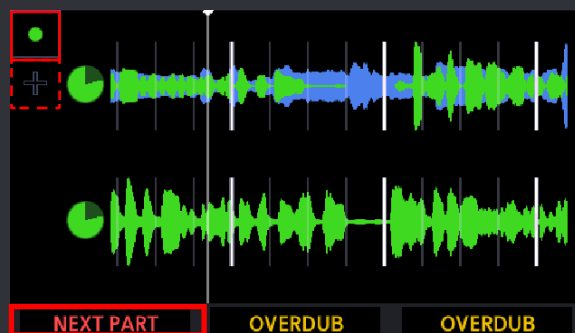
- 移除(undo)最近錄製那軌(層)
 - 持續踩/按 壓住，移除第二層(如果是已存在)
 - 當所有層軌都已移除，單踩/按 後會覆蓋該音軌
- 重做最近錄製的音軌(曾)
 - 持續彩/按 壓住，回覆被移除的疊軌。
- (當正在錄音時) 取消及刪除現有音軌。若長度同步追蹤為開啟(請查閱第22頁)，Aeros會主動加上相同長度的靜音軌。

ROP模式 單踩/按：

- 開始錄 (在該軌是空白的時候)
- 疊軌(Overdub)
- 播放疊軌

疊軌：疊軌是在原音軌上再多增加一層音軌上去。你可以無限制次數地疊上去，但每一次疊軌會和上一次的疊軌合併在一起，也就是說每一個音軌，最多會有2層音軌，就是原音軌+疊軌。而存檔後，最近一次的疊軌會和原音軌合併再一起，節省內部記憶體空間。

NEXT PART



單踩/按：

- 改變歌曲區段，是在該區段已錄製好的狀況下。若沒有錄製好，就會開始執行錄製。

踩/按 壓住：

- 開啟混音器

PLAY/STOP ALL



單踩/按：

- 停止所有音軌撥放

○ 你可以在主目錄下設定為“立即停止撥放”、“停在該小節結束”或是“停在這音軌的最後結束點”。

- 重新播放所有音軌

雙踩/按：

- 立即停止所有音軌撥放。

壓住(在停止狀況下)：

- 刪除所有音軌以及歌曲區段，重頭開始製作。

按下/放開 設定：主螢幕[SETTINGS]目錄下可以設定 [Play/Stop All]鈕是在處於按下或是放開的狀況下開始執行。按下的設定是比較即時反應的，停止播放模式下按下後壓住後會刪除所有音軌然後開始撥放幾秒原定歌曲。

VOLUME WHEEL

可以在任何時間點使用LOOP VOLUME控制總輸出音量大小。



紅線框起來內有2條細細地的線條區塊可以看到左右聲道輸入的音量大小。若看到線條頂到呈現紅色，請調降您樂器的音量大小。

混音器畫面：你可以看到音量滾輪可以控制每一軌(選定後)的音量大小。

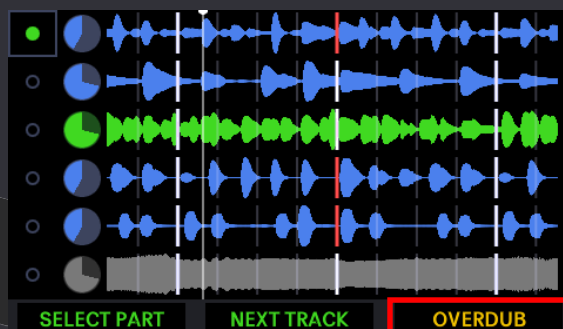


如沒有音軌是靜音，選擇“MASTER”後可以有一次將所有音軌靜音。

6x6模式下，你可以同時有6個歌曲區段，每個可有6個併行音軌，總共有36軌音軌可以使用。

TRACK BUTTON

The Track Button (圖中右下角紅線框) 針對已選擇好的音軌或區段執行動作。選好的部分會以“綠色”顯示。腳踏開關鈕會有2種模式，ROP(record · play · overdub)或是ROP(record · overdub · play)。可到[SETTINGS]目錄下去做模式的設定(請到第25頁閱覽)。原廠是設定為RPO模式。



RPO 模式 單踩/按：

- 開始錄(在該軌是空白的時候)
- 播放錄音軌
- 疊軌(Overdub)
- 播放疊軌

ROP模式 單踩/按：

- 開始錄(在該軌是空白的時候)
- 疊軌(Overdub)
- 播放疊軌

雙踩/按：

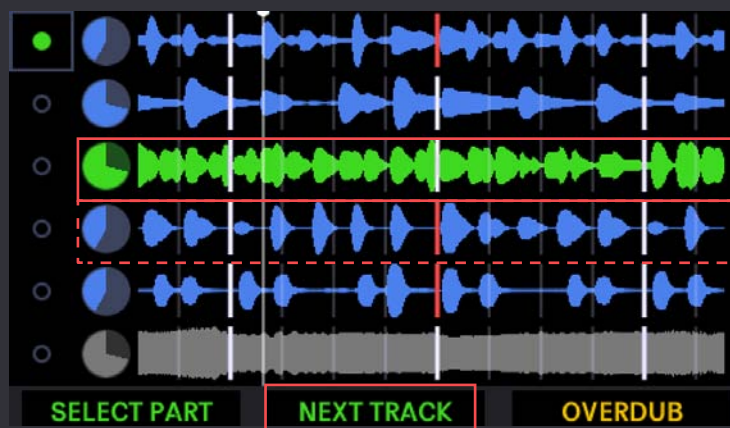
- 靜音Mute (即時產生, 每小節結束點或是循環區段結束點。關於靜音Mute設定第25頁)
- 單踩/按後解除靜音

HOLD:

- 移除(undo)最近錄製那軌(層)
 - 持續彩/按 壓住，移除第二層(如果是已存在)
 - 當所有層軌都已移除，單踩/按 後會覆蓋該音軌
- 重做最近錄製的音軌(曾)
 - 持續彩/按 壓住，回覆被移除的疊軌。
 - (當正在錄音時) 取消及刪除現有音軌。若長度同步追蹤為開啟(請查閱第22頁)，Aeros會主動加上相同長度的靜音軌。

疊軌：疊軌是在原音軌上再多增加一層音軌上去。你可以無限制次數地疊上去，但每一次疊軌會和上一次的疊軌合併在一起，也就是說每一個音軌，最多會有2層音軌，就是原音軌+疊軌。而存檔後，最近一次的疊軌會和原音軌合併再一起，節省內部記憶體空間。

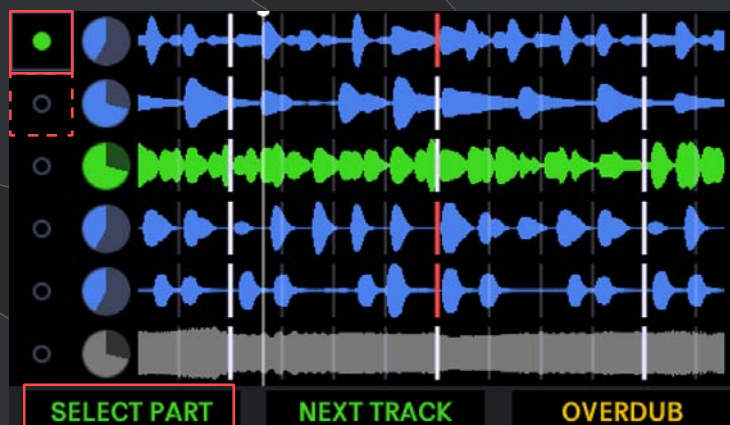
NEXT TRACK (圖中框線)



單踩/按：

- 選擇下一音軌
- 若選到空白音軌將自動start/cue(開始/提示)錄製新的一軌。

SELECT PART (圖中框線)



單踩/按：

- 選擇下首曲子的部分區塊
- 點按左方音軌的圓圈來選擇曲子的部分區塊
- 若選擇曲子的部分區塊尚未錄製(新的曲子會顯示 + 記號) , 點按Track Button會開始錄製新的曲子。

按壓住：

- 打開Mixer(混音器視窗)

PLAY/STOP ALL



單踩/按：

- 停止播放所有音軌
 - 可以在主畫面設定目錄中選擇**馬上停止撥放**或等最長的音軌撥放完畢。
- 回復播放所有音軌
 - 暫停播放狀況下，可選擇不同的區塊或是音軌。用音軌按鈕會在該軌開始疊錄或錄製。

雙踩/按：

- 馬上停止所有音軌撥放

按壓住(停止播放狀態)：

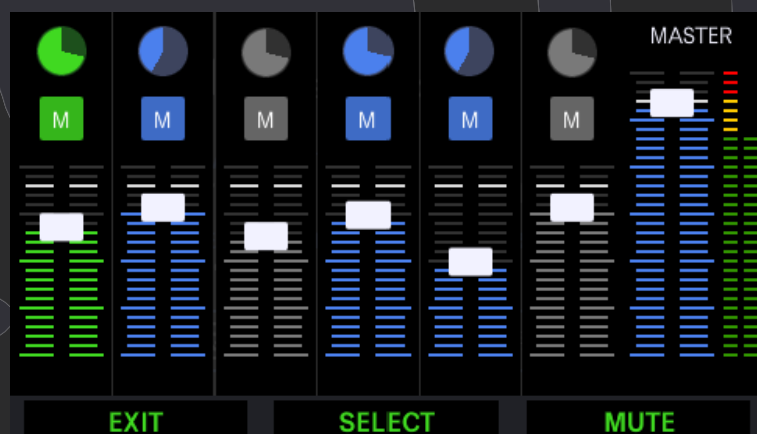
- 刪除所有音軌、區塊，重新開始新的一首曲子。

VOI UMF WHFFI (音量滾輪)

任何時候可以控制總音量輸出大小。也可以在螢幕目錄或歌單目錄用來作選擇。

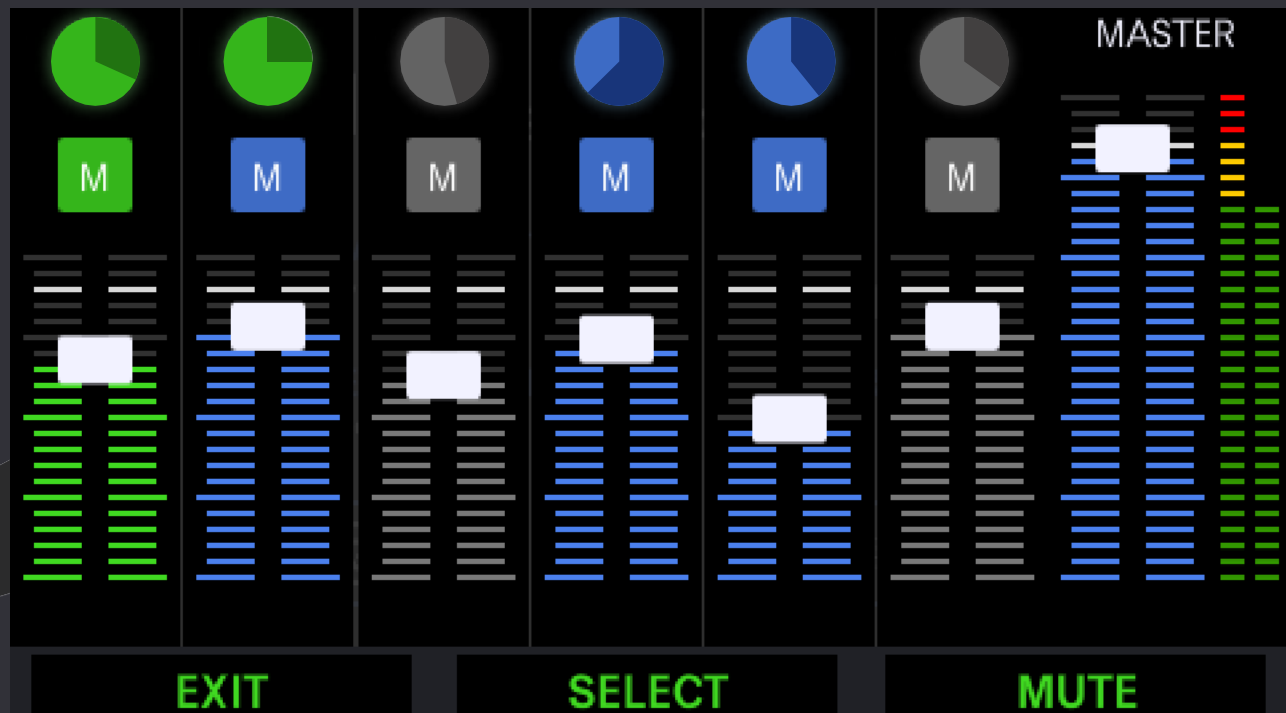


左右聲道的輸入音量顯示在螢幕右邊較細的2的直條訊號。若顯示為頂端紅色區塊，請調降你的樂器音量輸出。



Mixer(混音器):

可用音量滾輪去調整選定的音軌音量大小。



Mixer畫面可看到曲子裡的每一音軌。

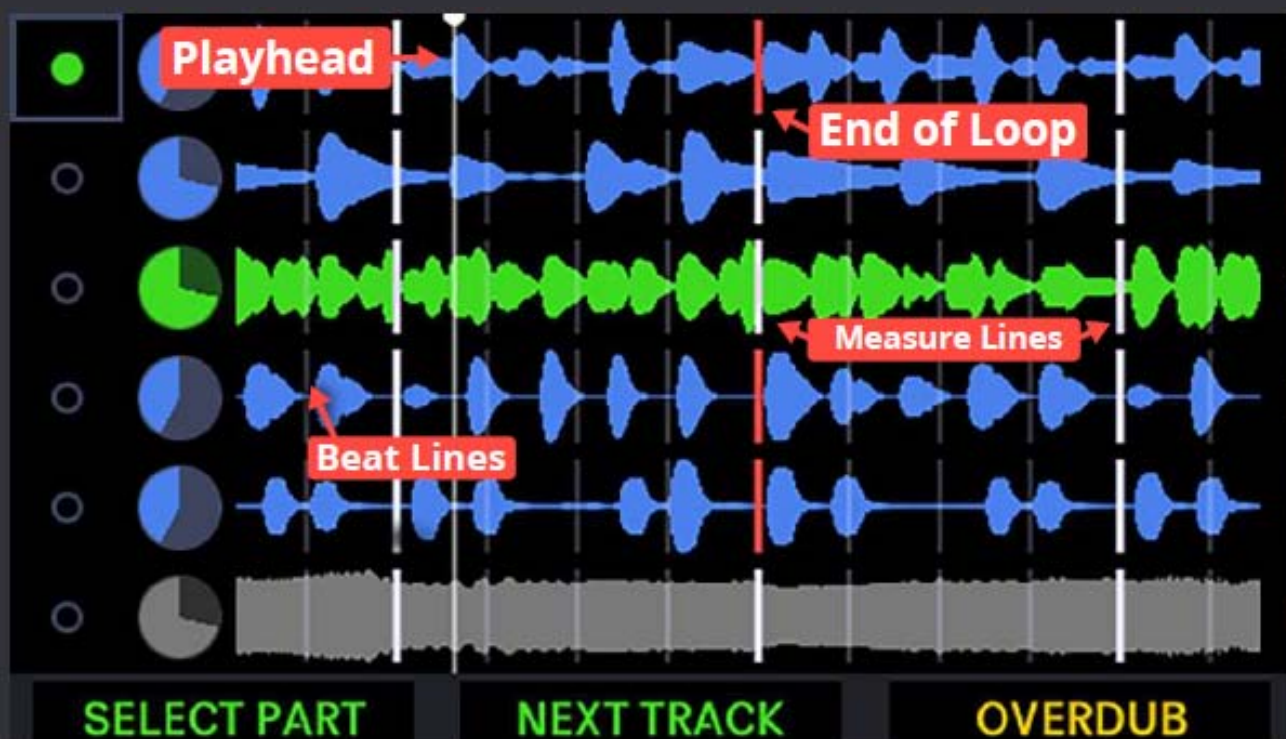
你可以點選每一軌的音量大小或是將獨立一軌靜音。

也可以不使用手調整，腳踏中間SELECT按鈕去選擇不同音軌，使用Volume Wheel音量滾輪來調整音量大小。

最右邊MUTE則是mute靜音或unmute開啟聲音。

提示：打開mixer畫面並不會停止撥放歌曲！

TIMING

**Playhead**

顯示目前您在循環撥放中的位置(時間軸)。在已量化對點模式中，每一拍都會閃一下，而每一小節的開始會較亮一些。

Beat

每一拍會顯示淺白色細線(只在已量化對點模式中)。

Measure

每一小節會顯示白色粗線(只在已量化對點模式中)。

End of Loop

該音軌結束處會顯示紅色粗線。

音軌波形



Red Waveform : 紅色波形

目前正在錄製新的音軌



Green Waveform : 綠色波形

目前所選擇的音軌層



Blue Waveform : 藍色波形

播放中，但不是已選擇好的



Yellow Waveform : 黃色波形

目前在錄製疊音(OVERDUB)



Gray Waveform : 灰色波型

靜音軌




Faded Waveform : 陰影色

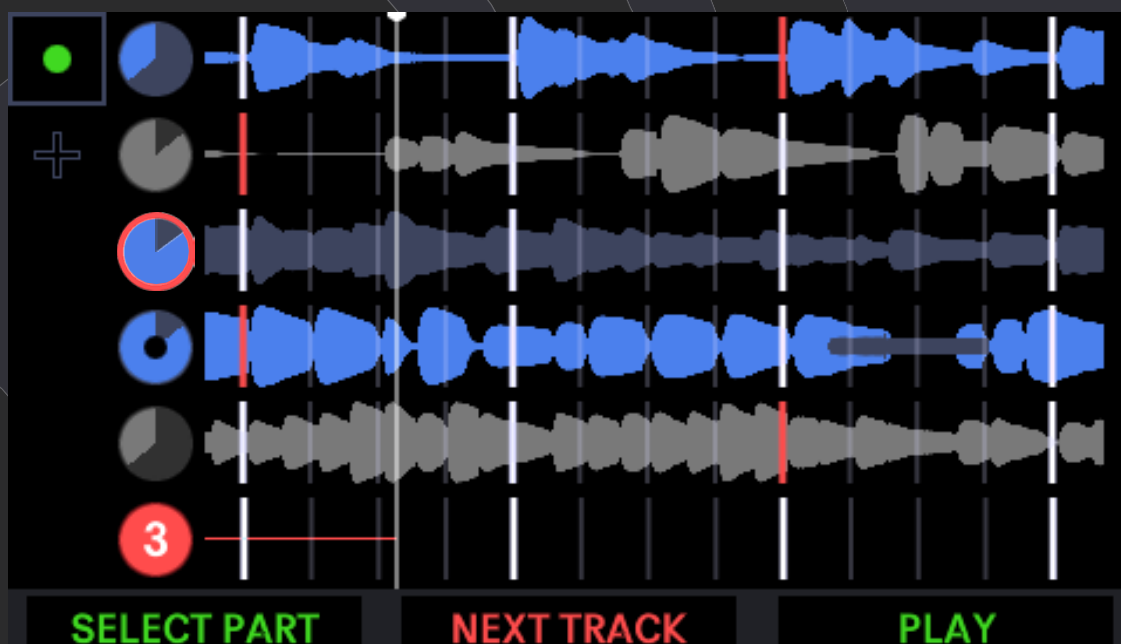
尚未完成的一層，可取回已錄好的或是重新錄製。

TRACK CLOCKS

	<p>時鐘暗的部分：顯示該音軌已撥放了多少。</p> <p>時鐘亮的部分：顯示該音軌尚未撥放的長度剩多少。</p>
	<p>實心紅色圓形：</p> <p>若同步長度已開啟(查閱第23頁)，則在錄音時表示出該音軌為最基礎最長時間的一軌。</p>
	<p>綠色時鐘：目前所選擇的音軌</p>
	<p>藍色時鐘：目前正在撥放的音軌。</p>
	<p>黃色時鐘：該軌目前正在錄製疊音。</p>
	<p>灰色時鐘：該音軌為靜音狀態</p>
	<p>綠色外圈的灰色時鐘：靜音的音軌已被選取</p>
	<p>中間有個小黑洞的時鐘：該音軌有尚未完成的疊層。可取回已錄好的或是重新錄製。</p>
	<p>中間有個大黑洞的時鐘：該軌的最底(基礎)層已被取消。可取回已錄好的或是整個重新錄製新的長度。</p>
	<p>有紅色外圈在閃：下個指令停止點會在最長音軌的結束處，請查閱第23頁</p>

SONG PART ICONS

	方塊：目前播放的歌曲區間(例：主歌、間奏 或是 副歌)
	綠色圓點：目前選擇的歌曲區間
	在閃的綠色圓圈：提示下個要轉過去的歌曲區間
	中空圓圈：選尚未選擇的歌曲區間(已錄製好的)
	閃爍的紅色十字：提示將要開始錄製新的歌曲區間



SETTINGS 設定

設定部份分為2個目錄。

1. **歌曲設定**：針對一首歌曲的設定。除了更改歌名、存放位置(內部記憶體或SD卡)，幾小節後開始錄，之外，其他在完成錄音後是無法再更改的。**歌曲設定**位置在LOOP STUDIO畫面右上角一個長得像鉛筆的方塊裡面。
2. **主要設定**：每首歌去隨時可更改。**主要設定**的位置在LOOP STUDIO畫面下方中間處，一個[家]的圖標裡的“SETTINGS”目錄裡。

歌曲設定 (內容)

Song Name (曲名)：

任何時間可更改您所要的曲名。

Song saved to (歌曲儲存位置)：

將歌曲存放在AEROS內部記憶體或SD卡(可接受SD卡最大32GB容量)

Record (錄音)：設定錄音格式/方式。

- Mono：左/右輸入端的聲音會融合為單一聲道。但不影響從AEROS輸出端的聲音。
- Stereo：錄音時聲音會被分成L/R左右軌的聲音。但不影響從AEROS輸出端的聲音。

Number of tracks (總軌數)：一首歌曲裡需要總共多少歌曲區間以及平行錄製的疊音/層。

2x2 提供2個歌曲區與2個平行疊音/層(註:可無限疊上去)，方便快速設定操作。

6x6 提供6個歌曲區與6個平行疊音/層(註:可無限疊上去)。

SETTINGS(設定)

音軌同步：

- **定義：**第一個錄製的最底層音軌簡稱Base Track：在Quantized量化(修拍)模式開啟狀態下，是以這個最長時間的Base Track為底去做修拍子。而關閉Quantized量化(修拍)模式在自由模式下，Base Track將是最短時間的區塊。
- **選取 Sync Length (總長度同步)：**
錄完第一個音軌後，後續所有的音軌會以第一個音軌長度為主，被等比例的分配。
在Quantized量化(修拍)模式下，所有音軌會強迫運算撥放多次。舉例，若Base Track總小節數是12小節，其他音軌會放在第1, 2, 3, 4, 6, 12, 24, 36小節, etc。小節長度的測量是看什麼時候給予recording/start的指令。
- **選取 Sync Start & Length (同步開始位置與長度)：**
錄完第一個音軌後，所有後續的錄音都會接在該歌曲區間裡最長的音軌的第一拍開始處。

Quantize to measure(節數量化(修拍))：從開始到停止錄音的第一拍到最後一拍做運算。需要依照BPM(Beats PER MINUTE)和拍子數(4/4，7/8 or 8/16)，原廠會有設定值。若此模式為Off狀態，就會在自由模式下發揮，螢幕除了聲音波形外會完全不顯示任何小節，拍子，節奏。

Time Signature (節拍)：

左為每小節幾拍，右為幾分音符為一拍。

Tempo (速度)：歌曲的速度。每分鐘幾拍，Beats Per Minute (BPM).

Count in (幾小節後開始錄音)：AEROS幾小節後開始錄音，只有在第一軌/次運作此功能。

DEVICE SETTINGS 主機設定

以下設定在起始畫面螢幕中的“SETTINGS”目錄下，打上*號的皆為原廠設定值。

Recording source (錄音來源) : 選擇您要錄音的輸入端，可以選擇其中一個或全選。

- Main In*
- Aux In

Main Input Level (主輸入端音源規格) : 設定輸入端的阻抗以符合您樂器種類。

- 樂器(類似吉他或任何未經過訊號放大樂器) = 1M Ohms 阻抗*
- Line in(線性輸入，類似效果器、電子鼓、電鋼琴) = 50k Ohm 阻抗

Audio Output (總音量輸出) : 設定聲音輸出為Stereo(立體聲)或 Mono(單聲道)。

- Mono : 所有立體聲會融合成單聲道作總輸出(警告:設為Mono，輸出音量會將左右聲道疊在一起，整體訊號音量會增加2倍，可能造成聲音破音失真。)
- Stereo : 總輸出分為左/右聲道立體聲。

Loop playback routing (AEROS循環撥放時的路徑) : 選擇您要撥放的輸出端，可以選擇其中一個或全選。

- Main Out*
- Aux Out

Main input routing (Main Input輸出路徑) : 選擇Main input訊號要送到哪個輸出孔，

可以選擇其中一個或全選或都不選(以防止做LIVE時因為MIXER接到AEROS後會有相位打架的事情)

- Main Out*
- Aux Out

Aux In Routing (Aux in路徑) : 選擇AuxIn訊號要送到哪個輸出孔，可以選擇其中一個或全選或都不選。

- Main Out
- Aux Out*

Click Routing (節拍器路徑) : 選擇Click訊號要送到哪個輸出孔，可以選擇其中一個或全選或都不選。

- Main Out
- Aux Out

Click after recording first track (錄完第一軌後的節拍器) : 選擇 Off 為確定節拍器是在第一次錄第一軌的時候有聲音，而在第一次錄第一軌之後就沒了。選擇 On 則是從頭到尾都會開著。

- On*
- Off

Click Volume (節拍器音量) : 看你需要多大聲的節拍器(原廠設定值為50)

MIDI IN 啟動 : 設定AEROS對於收到MIDI訊號啟動的作用，可以選擇其中一個或全選或都不選。

- Record (若無錄好的音軌，則開始錄音。)*
- Playback (若已有錄好音的音軌，則開始撥放)*

Change Song Part/Stop Song 變更歌曲區間/停止歌曲 : 針對歌曲最長的音軌，按下Play/Stop鈕會停止所有以及下一個歌曲區間。當在錄音或疊音的時候會持續運作，等這段區間結束後便會開始執行停止撥放。

- Immediate/End of Measure(EOM) (這小節結束後馬上停止撥放)
- End of Loop* (等這音軌最後一小節結束後停止撥放)

Mute/ Unmute Track (音軌靜音開/關) : 設定Mixer模式中音軌靜音開/關的指令。(雙踩為Mute，單踩為Unmute)。

- Immediate : 直接執行靜音開/關功能
- EOM (End Of Measure): 等候該音軌這一小節結束後執行。*
- End of Loop : 等候該軌最後一小節結束後執行。

Play/Stop All Button : 設定Play/Stop All鈕。

- Press (踩/按) : 立刻執行Play/Stop All功能。*
- Release (放開) : Play/Stop All鈕會在踩下去方開後開始執行功能。

Track Button Action : 設定最下面那三顆鈕的功能。

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

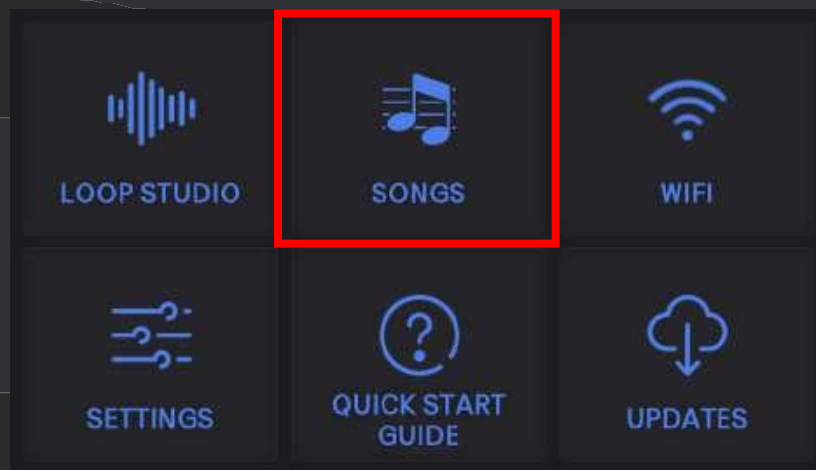
MIDI IN Channel : 設定AEROS能夠接收的MIDI訊息。選擇全部或獨立MIDI軌(1-16)。原廠設定為全部。

MIDI OUT Channel : 設定AEROS能夠送出MIDI訊息。選擇獨立MIDI軌(1-16)。原廠設定為channel 1。

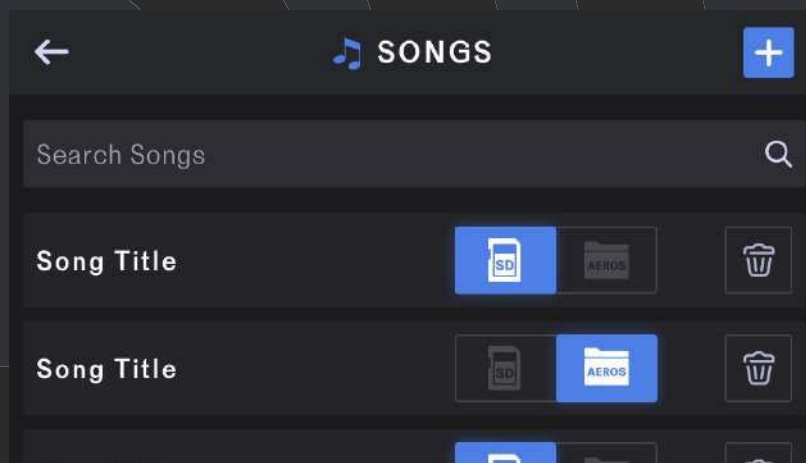
點擊 Hit “Restore Default Settings” to reset Aeros to factory global settings.

即回覆所有原廠設定。

在主畫面螢幕觸碰按下SONGS即可找到您所需要的歌曲



滑動畫面可以找尋不同的歌曲，或是點選右上角的“+”圖標來開始一首新歌。



點選任何歌曲即可馬上載入，然後您會發現馬上回到回到Loop Studio畫面顯示出您所載入個歌曲。

歌曲儲存位置會顯示藍色在AEROS的內建記憶體或是SD卡。

您可以移動歌曲儲存位置是放在AEROS內建記憶體或SD卡。

刪除歌曲只需要點選最右側的垃圾桶圖標即可。

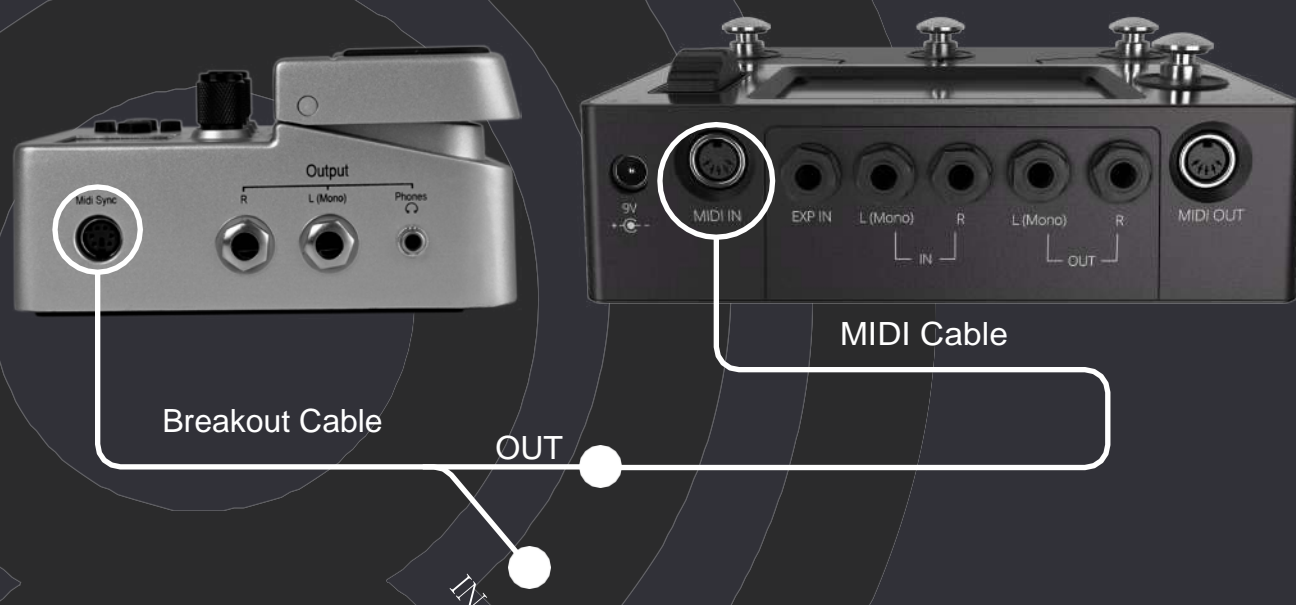


Aeros Loop Studio 本身就與BeatBuddy有著Plug & Play的效能，讓你體驗不用手就可以完全操控的功能。

目前AEROS可由BeatBuddy來做控制(BeatBuddy設定為Master，Aeros設定為Slave)。我們繼續在開發中，將Aeros能設定為Master。未來會在新的韌體更新上做到這個功能。

要連接Aeros和BeatBuddy需要一條[standard 5 pin MIDI 線](#)。

將MIDI線的Out接到AEROS的MIDI IN和BeatBuddy的MIDI Sync即可。



不論如何，如果BeatBuddy的本身MIDI設定有被更改過，請查閱Next Part(CC-102)的指令功能是否開啟。請到BeatBuddy的Settings目錄裡(同時按壓drum set和tempo旋鈕)然後選擇Enable

MainPedal>MIDISettings>MIDI-OUT>NextPart(CC-102),and select 'Enable'.

BeatBuddy會自動為AEROS設定速度(BPM)與節拍。請注意：當你從BeatBuddy載入歌曲後，節拍會由BeatBuddy直接送給AEROS，若要開啟全新的歌曲，請由BeatBuddy開啟設定新的節拍數。

請設定BeatBuddy MIDI為
Main Pedal > MIDI Settings > MIDI-OUT > Start
去符合AEROS在 2x2 與 6x6 的模式。

原廠設定BeatBuddy暫停時，AEROS會停在該軌最後一小節結束後。
可以從BeatBuddy去設定您要停止於鼓機撥放完畢還是馬上暫停。
在BeatBuddy的 Main Pedal > MIDI Settings > MIDI-OUT > Stop。

2x2模式下做歌曲區間切換會等BeatBuddy那區間的音檔撥放完後才會更換。

6x6模式下，你需要手動使用下面區塊左方的旋鈕去選擇需要轉換過去的歌曲區間，並使用BeatBuddy來操作。

Aeros的設定若為“End of Loop”，那BeatBuddy的The Next Part (轉到下一個歌曲區間)和Stop commands (停止, 暫停)取代Aeros的Change Song Part/Stop Song Aeros並不會等到該音軌最後一小節結束後才轉換，都是與BeatBuddy同步運作的。

The Aeros (as of firmware 3.1.10) 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. 25). 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

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

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).

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-Solo 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-solo 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 its 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.

Overdubs (疊音) : 呈現黃色波形通常與上一次錄的在通一音軌但是在最上面一層，像是市面上類似的循環播放機一樣的疊層，可以無限疊音上去。選取的音軌已有一個疊層，再疊一層上去的時候，就會與原有的那一層融合在一起，無法再切開。若新的疊層尚未完成，再錄製一次時會取代掉未完成的那一層。

Aeros可接受SD卡4-35GB的容量範圍。建議使用Class 10 SD卡可以提升擷取載入的速度。

每首錄音時間 : 20 分鐘 (mono模式)

錄音檔案儲存 : 內部記憶體可錄3小時(mono), 1.5小時(stereo)，使用SD卡可錄製達48小時(mono，32G SD卡)。

音質 : 32-bit 浮點運算，24-bit, 44.1kHz取樣頻率。專業DACs換算晶片，低延遲(<3ms latency)以及20hz – 20kHz頻率範圍。

Digital dry through bypass (數位化純訊號通過) : Aeros 提供高音質輸出並不會對原始聲音有任何的渲染失真。

External expression pedal (延伸控制踏板) : 額外的控制踏板可以做音量控制。請注意，目前韌體版本尚未支援，未來將會提供新的韌體更新支援此區塊。

Aeros 需要需要公對公標準規格 5 心有 MIDI Breakout 的 MIDI 線來連接 BeatBuddy。

在某些狀況下，因為共用同一電源迴路系統而產生的雜訊(Ground Loop)，可以參考使用[Behringer MicroHD HD400 Ultra-Compact 2-Channel Hum Destroyer](#)或是 [Mpow Ground Loop Noise Isolator](#)

Cross fades(淡進淡出)：8ms 的淡出和歌曲區間的淡進淡出都會由Aeros自動完成，以避免各區間轉換時會有討人厭的‘POP’聲出現。

內部軟體損壞：若您在使用SD卡的時候造成當機或不能運作，Aeros都會存一個“日誌 log”在SD卡裡。請將該日誌壓縮成ZIP檔後傳到support@singularsound.com，這可以協助我們理解為什麼會發生以便於維護處裡此狀況。

規格表：

I/O：

1/4" (6.35mm mono輸入孔) x 2

1/4" (6.35 mm mono輸出孔) x 2

1/4" (6.35 mm stereo aux 輸入孔) x 1

1/4" (6.35 mm stereo aux 輸出孔) x 1

輸入阻抗：1MΩ(樂器)與50kΩ(Line訊號)

輸出阻抗：~100Ω

電源：9v，360mA(內負外正接頭)

4.3吋觸控式彩色螢幕(109 mm)

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

重量：2lbs 4oz (936 g)

鋁合金機身，黑色防刮掉漆塗料

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

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

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:

- **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

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.