

# LS9 StageMix V6 User Guide



Welcome:

Thank you for downloading the "LS9 StageMix" iPad app for the Yamaha LS9 digital mixing consoles.

The latest firmware version for LS9 can be downloaded from <u>www.yamahaproaudio.com</u>

StageMix is an application for the Apple iPad that provides remote control of Yamaha LS9 digital mixing console functions via a simple, intuitive graphical interface from anywhere within wireless range. The software has been specifically designed to allow engineers to adjust monitor mixes from the performers' positions on stage, directly controlling mix parameters via the iPad rather than having to rely on verbal directions to a second engineer. The result is better mixes in less time; a huge advantage during high-pressure pre-show setup. Although StageMix is focused on the requirements for adjusting monitor mixes on stage, its range of features is continually expanding, allowing it to be used for a wider variety of remote control functions.

Note: iOS applications may not be supported in your area. Please check with your Yamaha dealer.

# CONTENTS

F	Page
1.0 System Requirements	6
2.0 Wi-Fi Settings	
3.0 Getting Started	
3.1 LS9 Network Setup	7
3.2 iPad Wi-Fi Settings	7
3.2.1 Using DHCP	7
3.2.2 Using a Static IP Address	8
3.3 StageMix Setup	9
3.3.1 OFFLINE DEMO	
3.3.2 Configure StageMix to Work with an LS9 Console	10
3.3.3 Select a Mixer and Begin Working	
3.3.4 Edit Mixer Configurations	
4.0 Mixer Window	
4.1 Channel Bank Navigation	
4.2 Layer Navigation	
4.3 Channel Names and Colors	
4.4 Faders	
4.4.1 Long Faders	
4.4.2 Navigation in Long Faders Mode	
4.5 Channel ON	
4.6 CUE	
4.7 Master Bank	
4.7 Master Bank	
4.8.2 Phantom Power	
4.9 SENDS ON FADERS	
4.9.1 Mix Send Levels	
4.9.2 Mix Sends ON	
4.9.3 Mix Send PRE/POST	
4.9.4 Global PRE/POST	
4.9.5 Stereo Mix Pan	
5.0 EQ / PAN / DYNAMICS	
5.1 EQ	
5.1.1 EQ Curve in Mixer Window	
5.1.2 Selecting PEQ or GEQ	
5.1.3 Accessing the EQ Editing Screens	
5.2 PARAMETRIC EQ EDITING	23
5.2.1 Gain and Frequency Lock	24
5.2.2 HPF	
5.2.3 EQ Bands 1 & 4	25
5.2.4 EQ ON	
5.2.5 EQ RESET	25
5.2.6 EQ TYPE	
5.2.7 PEQ COPY/PASTE	
5.2.8 RTA ON	
5.2.9 RTA HOLD	
5.3 GRAPHIC EQ EDITING	

5.3.1 Navigation in the GEQ Overview Section	27
5.3.2 Rack Position	28
5.3.3 GEQ Type	28
5.3.4 RTA ON	28
5.3.5 RTA HOLD	28
5.3.6 GEQ FLAT	28
5.3.7 GEQ Copy/Paste	28
5.3.8 GEQ ON	28
5.3.9 Editing GEQ Bands	29
5.3.10 Navigation in the GEQ Editing Section	29
5.4 PAN TO ŠTEREO BUSSES	
5.4.1 Balance	
5.5 DYNAMICS PROCESSORS	
5.6 DYNAMICS PROCESSOR EDITING	
5.6.1 Default	
5.6.2 Copy/Paste	
5.6.3 Dynamics On	
5.6.4 Dynamics Type	
5.6.5 Threshold	
5.6.6 Range and Ratio	
5.6.7 Other Dynamics Parameters	
5.6.8 Key In	
6.0 OUTPORTS	
6.1 Navigation	
6.2 Output Port Identification	
6.3 Delay On	
<b>,</b> -	
I	
I	
6.7 Delay Time Editor	
6.7.1 Delay Scale	
6.7.2 Numeric Keypad	
6.7.3 Nudge Delay Time Values	38
6.7.4 Copy Delay Time Value	
6.7.5 Paste Delay Time Value	
6.7.6 Close the Delay Time Editor	
7.0 UTILITY	39
7.1 MUTE GROUP MASTERS	
7.2 TAP TEMPO	
7.2.1 Multi-Select	
7.3 OSCILLATOR	
7.3.1 Oscillator Assign	
7.3.2 Oscillator Output	
7.3.3 Oscillator Level Control	41
7.3.4 Oscillator Frequency	
7.3.5 Oscillator Mode	
8.0 EFFECT RACK	
8.1 Rack Overview	43
8.1.1 Rack Patching	43
8.1.2 Accessing GEQ/FX Editor	44
8.1.2 Accessing GEQ/FX Editor	44

8.1.3 GEQ Editing	. 44
8.1.4 GEQ ON	. 44
8.1.5 Rack Metering	. 44
8.2 Effect Editing	. 45
8.2.1 Current Effect	. 45
8.2.2 Effect Type Selection	. 45
8.2.3 Effect Library	. 45
8.2.4 Input and Output Patch Assignments	
8.2.5 Input and Output Meters	
8.2.6 Effect Bypass	
8.2.7 Effect Cue	
8.2.8 Close Effect Editor	
8.2.9 Parameter Editing using Sliders	
8.2.10 Numerical Parameter Editing	
8.2.11 Multi-Segment Buttons	
8.2.12 Accessing Parameters	
8.2.13 Additional Parameters	
8.2.14 Wet/Dry Mix	
8.3 GRAPHICAL EFFECT EDITING	
8.3.1 REV-X Time/Level Parameters	
8.3.2 REV-X Space Parameters	
8.3.3 REV-X Filter Parameters	
8.3.4 REVERB Time/Level Parameters	
8.3.5 REVERB Space Parameters	
8.3.6 REVERB Filter Parameters	
8.3.7 REVERB Dynamics Parameters	
8.3.8 STEREO REVERB Program	
8.3.9 MONO/STEREO/MOD DELAY Parameters	
8.3.10 DELAY LCR Parameters	
8.3.11 ECHO Parameters	
9.0 SCENE MEMORY	-
9.1 CURRENT SCENE	
9.2 DECREMENT / INCREMENT SCENE	
9.3 SCENE LIST	
9.4 SCENE RANGE	
9.5 SELECTED SCENE	
9.6 STORE SCENE	
9.7 UNDO STORE	
9.8 RECALL SCENE	. 59
9.9 UNDO RECALL	. 59
10.0 SETUP	. 61
10.1 Fader Delay	. 61
10.2 Filled EQ Graph	. 61
10.3 Enable Inc/Dec Scene Recall	. 61
10.4 Show Send Levels in Meter Bridge	
10.5 Enable Phantom Power Switching	
10.6 Set EQ band to 0dB with Double-Tap	
10.7 Cue Mode	
10.8 Show dB Markings on Mixer	
10.9 Channel Select – StageMix Follows Console	

10.10	Channel Select – Console Follows StageMix	
10.11	Input Meter Point	
10.12	Output Meter Point	
10.13	Display Key Input for Dynamics Meters	
10.14	RTA Peak Hold Mode	
10.15	RTA Input Gain	
10.16	RTA Number of Bands	
11.0 T	roubleshooting	
11.1	No Wi-Fi Available	
11.2	Connection Error	
11.3	Connection Lost	
11.4	DHCP Server Setup on WAP/Router	
11.5	"Redirect to Internet" Problem with iOS 6 or higher.	
11.6	Graphic EQ Doesn't Affect the Sound	
11.7	Problems Moving Multiple Faders	
11.8	StageMix Facebook Page	

# **1.0 System Requirements**

- Apple iPad (any model using iOS 8 or higher)
- Yamaha LS9 digital mixing console
- Wi-Fi access point (802.11g, n or ac)
- CAT5 cable (to connect the console to a Wi-Fi access point)
- iOS: iOS 8.0 -9.x

# 2.0 Wi-Fi Settings

Configure the Wi-Fi access point, following the manufacturer's instructions. No special settings are needed, but using security such as WPA is highly recommended, to prevent unwanted devices from joining the network. Here are some suggested settings to assist less experienced Wi-Fi users:

- 1. Give the wireless network a name (this is the "SSID").
- 2. Choose a security mode (such as WPA) and password.
- 3. Select the wireless mode (802.11g, n or ac).
- 4. In the case of "n", select the wireless band (2.4 or 5GHz).
- 5. If available, enable "Auto Channel Selection" so the wireless channel with the least interference will be selected.

Using a Wi-Fi access point with 2 or more external aerials is recommended to increase potential signal range. Booster aerials could be connected for a further increase in performance.

# 3.0 Getting Started

### 3.1 LS9 Network Setup

Connect the Wi-Fi access point to the LS9 console's network port via a CAT5 cable.

Make sure your Ethernet cable is connected to a LAN port on your Wi-Fi device and not the WAN port.

Note the IP address and MAC address of the LS9 console - they will need to be entered into the iPad later. They can be found in the console as follows:

Press the [SETUP] button on the LS9 to access the MISC SETUP screen



# 3.2 iPad Wi-Fi Settings

The iPad can be configured using either DHCP or a Static IP address.

# 3.2.1 Using DHCP

Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a server to automatically assign an IP address to a device. Use the following steps to configure your iPad using DHCP.

- a) Open the iPad "Settings" menu
- b) Select "Wi-Fi", and choose the correct network
- c) Press the blue circle with the white arrow to the right of the selected network to edit the IP address.

# Yamaha Professional Audio

iPad 🗟	12:20		86% 🔳							
Settings	Wi-Fi	apple router								
Airplane Mode OFF	-									
Wi-Fi apple router		Forget this Network								
Bluetooth Off	IP Address									
Do Not Disturb	DHCP	BootP	Static							
Notifications	IP Address		192.168.0.3							
General	Subnet Mask		255.255.255.0							
Sounds	Router	Router 192.168.0.1						192.1		
Brightness & Wallpaper	DNS		192.168.0.1							
Picture Frame	Search Domains									
Privacy	Client ID									
Coud iCloud		Renew Lease								
Mail, Contacts, Calendars	HTTP Proxy									
T Notes	Off	Manual	Auto							
Reminders										
O Messages		Manage this Network								

- d) Select [DHCP] and ensure that your iPad receives data for the IP Address, Subnet Mask, Router and DNS.
- e) Select [Renew Lease] if this data is not applied.
- f) If the settings are successfully applied, press the iPad's Home button to exit the Settings menu.

Note:

- Make sure that the subnet of the IP address is the same as that of the LS9 console.
- If DHCP settings are not applied after step (e), please check your DHCP server settings (refer to <u>11.4</u> for further advice). Alternatively, setup your iPad using a Static IP Address.

#### 3.2.2 Using a Static IP Address

- a) Open the iPad "Settings" menu
- b) Select "Wi-Fi", and choose the correct network
- c) Press the blue circle with the white arrow to the right of the selected network to edit the IP address.

4

	Forget this Network	
IP Address		
DHCP	BootP	Static
IP Address		192.168.0.124
Subnet Mask		255.255.255.0
Router		192.168.0.50
DNS		192.168.0.50
Search Domains		
HTTP Proxy		
Off	Manual	Auto

- d) Select [Static]
- e) IP Address: enter an IP Address similar to the one for the LS9 console, but with just the last number different. (For example, if LS9 is 192.168.0.128, give an address to the iPad such as 192.168.0.124).
- f) Subnet Mask: enter "255.255.255.0".
- g) Router: enter the IP Address of your Wi-Fi Access Point (printed on the bottom of the device or in the user's manual)
- h) DNS: enter the IP Address of your Wi-Fi Access Point (as in step g)
- i) Press the iPad's Home button to exit the Settings menu.

# 3.3 StageMix Setup

Launch the "LS9 StageMix" App



The "Select Mixer" screen will appear. From this screen, you can do any of the following things:

- Access the OFFLINE DEMO mode to explore the features and user interface of LS9 StageMix.
- Configure StageMix to work with an LS9 console.
- Select an LS9 console that has already been configured to work with your iPad and begin using StageMix.

### 3.3.1 OFFLINE DEMO

If [OFFLINE DEMO] is pressed in the "Select Mixer" screen, the functions of StageMix will operate independently of any mixing console. It is a useful way to demonstrate and learn how to use the app without the need for a mixer. Level meters and most Scene Memory functions do not work in this mode.

# 3.3.2 Configure StageMix to Work with an LS9 Console

i. Press [ADD MIXER] to open the following screen:

Add Mixer						
Name						
IP Address	192.168.0.12	28				
MAC Address	00:a0:de:					
Model	LS9-32	LS9-16				
		机电流器				
	ADD MIXER					
	CANCEL					

- ii. Tap on the blank Name field and enter a name for your LS9 console using the iPad's onscreen keyboard.
- iii. Enter the LS9 console's IP address noted in <u>3.1</u>. The default IP Address may not need to be changed but confirm this in the Network Setup screen of the LS9 console (refer to <u>3.1</u>). If you need to modify the IP Address in StageMix, make sure you include the dots between the sets of numbers (as shown above).
- iv. Enter the LS9 console's MAC address noted in <u>3.1</u>. When entering the MAC Address, the colons between sets of characters will be automatically added by StageMix.

- v. Select the Model of LS9 console.
- vi. Press the [ADD MIXER] button at the bottom of the screen.

# 3.3.3 Select a Mixer and Begin Working

If your iPad has been configured to work with an LS9 console, select the mixer from the list and press [CONNECT]. The model of mixer (LS9-32 or LS9-16) will appear in smaller text below the mixer's name.

Select Mixer
Sub Mixer State St
LS9 Monitors
ADD MIXER DELETE MIXER
Syncing With LS9
OFFLINE DEMO
CONNECT

The message "Syncing With LS9..." will appear while StageMix is obtaining parameters from the console. After this process is complete, the Mixer window will appear and StageMix is ready to be used.

If StageMix cannot connect with your console, refer to the Troubleshooting section  $(\underline{11.0})$  at the end of this document for possible solutions.

# 3.3.4 Edit Mixer Configurations

The parameters of a saved Mixer Configuration can be viewed and edited by tapping the right arrow button next to a mixer's name. This will open the Edit Mixer screen which allows the Name, IP Address and MAC Address to be verified and edited using the procedures described in section <u>3.3.2</u>. After editing, press [SAVE MIXER] to save any changes.

# 4.0 Mixer Window

The main page of the StageMix is called the "Mixer" window. It shows the EQ curves, Pan positions, Dynamics status, CUE and ON buttons, faders, level meters, and channel names and colors for eight adjacent channels.



Across the top of the screen, level meters and faders are displayed in blocks of channels for mono Input Channels 1-32, Stereo Input Channels 1-4, Mix and Matrix busses, and the Master Stereo and Mono busses. This is the "Navigation/Meter Bridge".

# 4.1 Channel Bank Navigation

Press any of the "Navigation/Meter Bridge" blocks to select the bank of channels to be viewed and controlled in the channel strips below.

# 4.2 Layer Navigation

Press the [CH 1-32] or [CH 33-64] button to make those banks of channels available in the first four blocks in the "Navigation/Meter Bridge".

The Layer Navigation button displays black text on a white background to indicate the active Layer.

Note: these buttons do not appear when using an LS9-16 console as only channels 1-32 are available in the first four blocks.

# 4.3 Channel Names and Colors

The name and color of each channel appears in StageMix as it does in the LS9 console. The names are dimmed if the channel is switched off.

Double-tap on the channel name in the Mixer window to edit the name and color. Type in a name and press [return]. Alternatively, navigate to another channel using the left/right cursor buttons above the keyboard. This allows multiple channels to be named before closing the keyboard.

#### 4.4 Faders

Each fader has its channel number displayed on its cap. The fader cap must be touched to allow the level to be adjusted. When a fader cap is touched, its background will lighten and its current dB value will be displayed. Using the iPad's multi-touch facility, up to eight faders can be moved simultaneously.

Note: "Multitasking Gestures" must be turned Off in the iPad in order to allow four or more faders to be adjusted simultaneously (refer to 11.7 for details).

# 4.4.1 Long Faders

Press the [LONG FADERS] button at the bottom-left corner of the Mixer window to allow more accurate adjustment of fader levels. In this view, EQ, Pan, Dynamics and the "Navigation/Meter Bridge" are not visible.



# 4.4.2 Navigation in Long Faders Mode

Although the "Navigation/Meter Bridge" is not visible in Long Faders mode, it is possible to navigate up or down in banks of 8 channels using the left/right arrow buttons in the upper left area of the Mixer window. Press the [LONG FADERS] button in the bottom-left corner again to return to the Mixer Overview.

# 4.5 Channel ON

Press [ON] to change the on/off status of the channel. The button is green when the channel is on. When a channel is off, its name and level meter will dim and its fader position shown in the "Navigation/Meter Bridge" will also dim.

If a channel is muted as part of a Mute Group, the ON button will blink.

# 4.6 CUE

The [CUE] buttons for each channel control the mixer's Cue functions. Their operation mode corresponds to the status of the Cue Mode in the Setup screen (refer to 10.7).

When [LAST CUE] mode is active, only one channel can be cued at a time. When [MIX CUE] mode is selected, multiple channels can be cued simultaneously.

The [CUE CLEAR] button will cancel any cues that have been activated. This is useful when there are multiple cues to cancel, and when some are hidden in other layers.

# 4.7 Master Bank

Pressing the [Master] block in the "Navigation/Meter Bridge" will cause channels from the master section to appear in the fader strips. Included in this block are the Stereo Master channel, Mono Master channel and the Monitor Level and On control.

Note: there are two EQ thumbnails above the Stereo Master channel. Parametric EQ is always linked for the left and right sides of the Stereo Master channel. However it is possible to have independent GEQs assigned to the left and right side of the Stereo Master.



#### 4.8 HA GAIN

The gain for each input channel can be controlled using the faders in StageMix. Press the [HA GAIN] button in the lower left area of the Mixer window to enter HA GAIN mode. This button will turn red and the background behind the channel faders will become red to indicate that StageMix is in HA Gain control mode.

Note: the [HA GAIN] button will only appear when a bank of Input Channels are selected since there are no Gain parameters for Output Channels.

CURRENT SCENE OO2  Scene Name		19-16 CH 17-2	CH 25-32	ST 1-4	CH1-32 CH33-64	Mix 1-8		T 1-8 Master
	IN 1 48V	IN 2 48V	IN 3 48V	IN 4 49V	IN 5 48V	IN 6 48V	IN 7 48V	IN 8 48V
SETUP	0	0	0		Ø	ø	•	0
CUE CLEAR	CUE	CUE	CUE	CUE	CUE	CUE	GUE	CUE
OUTPORTS	ON	ON	ON	ON	ON	ON	ON	ON
UTILITY	-35dB	СН18	СН19	CH20	CH21	CH22	CH23-	CH24
	-							
HA GAIN	CH17	CH18	CH19	CH20	CH21	CH22	CH23	CH24
LONG FADERS	Vocal	Horns	A.Sax	T.Sax	Str L	Str R	Violin	Cello

Faders can be moved to change the HA Gain for each channel. The gain value of each head amp will be displayed above the fader while any fader cap is being touched. Up to 8 faders can be adjusted simultaneously.

Faders will only appear for channels that have a head amp available.

# 4.8.1 Input Port

When HA GAIN mode is active, the input port assigned to each channel will be displayed at the top of each channel strip (EQ, Pan and Dynamics are not displayed when HA GAIN mode is active). Input Port is a display-only parameter and cannot be edited from StageMix.

# 4.8.2 Phantom Power

The 48V phantom power status for each input channel is also displayed at the top of each channel strip when HA GAIN mode is active. The 48V indicator will appear in red when phantom power is active. Phantom Power for each channel can be switched On or Off from StageMix if the relevant preference is ON in the SETUP screen (refer to 10.5). Tap on the [48V] button and a confirmation popup will appear.

By default, the 48V phantom power indicators are display-only and cannot be edited from StageMix.

# 4.8.3 Phase

The Phase setting for each input channel appears near the top of the channel strips when HA GAIN mode is active. The Phase setting can be edited from StageMix by pressing this button. The button will have a grey background when the Phase setting is normal and will change to an orange background when Phase is reversed.

# 4.9 SENDS ON FADERS

Press the [SENDS ON FADERS] button in the left column of the Mixer screen to access sends to Mix Busses. In "SENDS ON FADERS" mode, each fader controls the send level from its channel to the currently selected Mix. The fader level indicators in the "Navigation/Meter Bridge" will show the positions of all the Mix Send Levels if the appropriate Preference is On in the Setup screen (refer to  $\underline{10.4}$ ).



The large [MIX ON FADERS] button displays the currently selected Mix or Matrix Bus number and its name. The color of this button matches those used in the LS9 console.

[CUE] and [ON] buttons appear below the [SENDS ON FADERS] button, allowing the currently active Mix Bus to be Cued and turned On/Off.

There are two ways to select a target Mix Bus:

- a) Use a swipe gesture on the [MIX ON FADERS] button to increment/decrement through the Mix and Matrix Busses.
- b) Press the [MIX ON FADERS] button to access a popup screen which allows direct selection of any Mix or Matrix Bus.

CURRENT SCENE	CH 1-8 CH	1 9-16	4 CH 25-32	ST 1-4	СН1-32 СН33-64	Mix 1-8	lulu il	1-8 Master
	с	L40	L30	R30	L63	R63	L20	R20
SETUP CUE CLEAR	No.		CUE		e cue	No CUE	- CUE	No.
OUTPORTS				TARGET			ON	
UTILITY		MIX 1 / 2 FrontL / FrontR		MIX 9 Andy	MIX 1 LL	0	PRE	PRE
MIX ON FADERS		MIX 3 / 4 Side L / Side R		F	MIX 11 / 12 Ioms / Homs		-5 - CH23 -	CH24
Mick SENDS ON			MIX 6 Steve	MIX 13 REV	MIX 1 Delay		-10	-10
FADERS	0	MIX 7 / 8 Mick / Keith		MIX 15 Rec L	MIX 1 Rec F	6 –	-20	-20
ON	CH17	CH18	CH19	CH20	CH2.1	CH22	CH23	CH24
LONG FADERS	Vocal	Horns	A.Sax	T.Sax	Str L	Str R	Violin	Cello

Select the Target from Mix 1-16. The currently selected Mix will appear as a white button with a check mark. Stereo pairs appear as single large buttons.

Notes:

- When a Mix block is active in the "Navigation/Meter Bridge", only Matrix 1-8 will be available in the "Select Target" popup.
- When the Matrix block is selected in the "Navigation/Meter Bridge", the [SENDS ON FADERS] button is not available.

# 4.9.1 Mix Send Levels

When in "SENDS ON FADERS" mode, the fader in each channel strip controls the level being sent from that channel to the currently selected Mix or Matrix Bus.

Note: if a Mix Bus is set to "Fixed" mode, send levels to that Mix Bus are fixed at 0dB and cannot be adjusted. Mix Send faders will not appear when a Mix Bus set to "Fixed" mode is selected.

#### 4.9.2 Mix Sends ON

In "SENDS ON FADERS" mode, the [ON] button in each channel strip is used to turn On/Off the Mix Send from each channel to the currently selected target Mix or Matrix bus.

# 4.9.3 Mix Send PRE/POST

The send from each channel can be assigned to be Pre or Post fader. A button above the meter in each channel strip displays the Pre/Post state and can be pressed to change the state. The [PRE] button appears yellow when On and grey when Off.

# 4.9.4 Global PRE/POST

Press and hold a [PRE] button to make global Pre or Post fader assignments. A popup will appear providing the following options:

- ALL MIX/MATRIX BUSSES PRE FOR THIS CHANNEL
- ALL MIX/MATRIX BUSSES POST FOR THIS CHANNEL
- CURRENT MIX/MATRIX BUS PRE FOR ALL CHANNELS
- CURRENT MIX/MATRIX BUS POST FOR ALL CHANNELS

# 4.9.5 Stereo Mix Pan

When a Stereo Mix Bus is active as the "Target Mix Bus", a Pan slider will be available at the top of each channel strip in "SENDS ON FADERS" mode. Adjusting this slider will change the Pan position for that channel's send to the currently active Stereo Mix Bus. The Pan position's numerical value appears above the slider.

If the Pan Link function is active for the currently active Stereo Mix Bus, a link icon will appear below the Pan slider. When Pan Link is active, adjusting a channel's Pan slider will affect the Pan parameter for that channel to the Master Stereo Bus and all other linked Stereo Mix Busses.

Note: Pan Link mode for each Stereo Mix Bus can only be activated in the console, not from StageMix.

To exit "SENDS ON FADERS" mode, press the [SENDS ON FADERS] button in the left column.

# 5.0 EQ / PAN / DYNAMICS

The thumbnail area at the top of each channel strip displays an EQ curve, the Pan position, or the Dynamics status for that channel.



The buttons to the left of the thumbnails are used to select between EQ, PAN and Dynamics mode by tapping on the left or right cursor button.

# 5.1 EQ

Every channel in the LS9 console has a dedicated Parametric EQ (PEQ). LS9 consoles also have Graphic EQs (GEQs) that can be assigned (inserted) on input or output channels.

Note: assignment of GEQs to channels must be done on the console and cannot be done in StageMix.

# 5.1.1 EQ Curve in Mixer Window

The EQ curve section on the Mixer Window will show the user whether a GEQ is available on any channel. If a GEQ is available on a channel in addition to PEQ, the user will be able to view the curve for either of these EQs and access the editing screen for either type of EQ.



Green and blue dots below each EQ curve indicate the types of EQ available on that channel, and the type of EQ (PEQ or GEQ) that is currently displayed for that channel. A green dot indicates PEQ and a blue dot indicates GEQ. When only PEQ is currently available on a channel, no dots will appear below the curve. (In Demo mode, GEQs appear on Mix busses1, 7 and 8).

In the example above:

- Mix Bus 1 has both PEQ and GEQ available, and GEQ is currently being displayed (the blue dot is solid and the curve is blue).
- Mix Bus 2 has both PEQ and GEQ available, and PEQ is currently being displayed (the green dot is solid and the curve is green).

 Mix Busses 3-8 have only PEQ available so no dots are displayed below their EQ curves.

# 5.1.2 Selecting PEQ or GEQ

On any channel displaying both a green and a blue dot below the EQ curve, the user can select either of those EQ types to be displayed by using a swipe gesture in the EQ curve area.

If a PEQ curve is currently displayed, swiping from right to left will cause the GEQ curve to be displayed.

If a GEQ curve is currently displayed, swiping from left to right will cause the PEQ curve to be displayed.

#### 5.1.3 Accessing the EQ Editing Screens

To access PEQ or GEQ editing, tap on the EQ curve to open the appropriate EQ Editing Screen.

- If a PEQ curve is displayed, the PEQ editing screen will be accessed.
- If a GEQ curve is displayed, the GEQ editing screen will be accessed.

Note: the EQ editing screen will be accessed when the finger is removed from the curve. Swipe gestures will not cause the Editing screen to be accessed.



# 5.2 PARAMETRIC EQ EDITING

The current channel's Name, Color, Fader, Level Meters, [ON] and [CUE] buttons are shown in the left column. At the bottom-left, there are "previous" and "next" arrow buttons for navigating to different channels.

- Tap and release on either of these buttons to navigate up or down to the next available channel.
- Press and hold either button to access an array of buttons that provide direct navigation to any available input or output channel in the console.

Buttons above the channel strip section provide direct access to the Dynamics editing screen for the currently selected channel. If a GEQ is assigned to that channel, these buttons will also provide direct access to the GEQ editing screen. Navigation between these screens follows this pattern:

PEQ <-> GEQ <-> DYN <-> PEQ <-> GEQ etc..

Note: the In/Out meters display the levels going In and Out of the EQ section.

One band of Parametric EQ can be adjusted at a time. Press one of the green circles to select the band, and it will be highlighted yellow. EQ bands in StageMix are labelled as follows:

HP = HPF (input channels only) 1 = Low Band 2 = Low-Mid Band 3 = High-Mid Band 4 = High Band

The current values for Freq, Gain and Q will be displayed for the currently selected EQ band.

Gain and Frequency can be adjusted by dragging the circle around the graph. Q is adjusted by using the iPad's "pinch" gesture: hold one finger (or thumb) on the screen while moving another finger closer to or further away from the first.

#### TIP

The most comfortable and accurate way of adjusting Q is to use a vertical pinch movement with the thumb and forefinger.

While an EQ band is being moved, the parameter value will turn yellow to indicate that it has changed. The little arrows show which direction the band should be moved to return to its previous position.



# 5.2.1 Gain and Frequency Lock

In some cases, it may be necessary to adjust the gain without altering the frequency. Or to adjust the frequency without changing the gain. In this case, the "Gain Lock" or "Frequency Lock" functions can be used. These buttons are located above the EQ graph.

The "Lock" buttons affect all 4 bands (but not the HPF). When a band is adjusted, the locked parameter value becomes red. The lock function is automatically turned off when you navigate to a different channel or select a different EQ band.

# 5.2.2 HPF

When any input channel is selected in the EQ Editing Screen, an [HPF] button appears at the top of the EQ graph. Press this button to switch the HPF on/off. When the button is green, the HPF is On. HPF has no Gain or Q parameter: only frequency.

When an output channel is selected in the EQ Editing Screen, the [HPF] button will only appear if band 1 is assigned to the HPF function.

# 5.2.3 EQ Bands 1 & 4

EQ bands 1 & 4 have additional choices of band-type. Both these bands can be assigned to function as a shelf or a bell, and band 4 can also function as a Low Pass Filter. Band 1 can also be a HPF for Mix, Matrix and Stereo/Mono Master channels. When one of these bands is selected, the relevant additional buttons are shown above the EQ graph.



#### 5.2.4 EQ ON

The channel EQ can be switched on/off with the [EQ ON] button towards the top-right of the EQ screen. It is green when the EQ is on. When the EQ is switched off, the EQ curve will be grey.

#### 5.2.5 EQ RESET

The [RESET] button above the EQ curve allows the EQ to be reset to either its Default values or to Flat. After pressing [RESET], an "Are You Sure?" popup will be displayed before the action is executed.

- Selecting "Default EQ" will reset all EQ parameters for the selected channel back to their default values, including HPF.
- Selecting "Flatten EQ" will set the Gain of bands 1-4 to 0dB, but will not change the Q and Frequency values.
- Select "No" to cancel and exit this function.



#### 5.2.6 EQ TYPE

The default EQ Type for every PEQ is Type I. This can be changed to Type II by pressing the [II] button at the top of the EQ editing screen.

To exit from the EQ window and return to the Mixer window, press the [MIXER] button at the top-right of the display.

# 5.2.7 PEQ COPY/PASTE

Parametric EQ parameter settings can be copied and pasted from one PEQ to another. Press the [COPY] button to capture the parameter settings of the current PEQ. Navigate to another channel and press [PASTE].

Note: the [PASTE] button will only be available when a suitable channel has been selected. PEQs for Input Channels can only be copied to other Input Channels, and PEQs for Output Channels can only be copied to other Output Channels.

### 5.2.8 RTA ON

A Real-Time Analyzer function is integrated into the PEQ editing screen. The iPad's built-in microphone is used as the input source for the RTA. Alternatively, an external mic connected to the headset jack can be used. Gain level is selected in the Setup Screen (refer to <u>10.15</u>).

When the [RTA ON] button is highlighted with a green background, a 61-band or 121-band Real-Time Analyzer will be displayed as part of the EQ editing graph. The number of bands used for the RTA can be selected on the Setup screen (refer to 10.16). This function is primarily intended to allow the sound engineer to move around the stage and identify problem frequencies in different locations, which could then be corrected using the parametric or graphic EQs.

# 5.2.9 RTA HOLD

Press the [HOLD] button to enable this function. The button will be highlighted with a yellow background. The RTA HOLD mode is selected in the Setup Screen (refer to 10.14).

# 5.3 GRAPHIC EQ EDITING

#### **GEQ** Overview

In the upper portion of the GEQ Editing Screen, the complete GEQ curve is displayed along with the gain positions for all 31 bands. White dots represent the position for each of the 31 bands. (These dots change to yellow and become larger when they are being touched in the Editing section below.)

RTA data is displayed behind the GEQ Overview when the RTA is turned ON in this screen.



The current channel's Name, Color, Fader, Level Meters, [ON] and [CUE] buttons are shown in the left column. At the bottom-left, there are "previous" and "next" arrow buttons for navigating to different channels. Pressing these buttons will only access other channels that have GEQs assigned to them.

Note: the In/Out meters display the levels going In and Out of the EQ section.

# 5.3.1 Navigation in the GEQ Overview Section

Tapping anywhere in the GEQ Overview will cause the GEQ sliders in the Editing section to jump to that range of the GEQ (represented by a light grey area in the overview). Touching the selected range in the Overview and dragging it left / right will scroll the range of GEQ sliders.

# 5.3.2 Rack Position

In the upper-left area of the GEQ screen, the Rack position of the channel's GEQ will be displayed. In the screenshot above, this GEQ is located in rack position FX4.

# 5.3.3 GEQ Type

Next to the Rack position, the type of GEQ is identified as either "31 Band" or "Flex 15". In the case of a Flex 15 GEQ, a larger-sized number indicates the remaining number of available bands for that GEQ. As each band is adjusted away from 0dB, the number of available bands will decrease. This number will turn red when no further bands are available to be edited.

# 5.3.4 RTA ON

A Real-Time Analyzer function is integrated into the GEQ editing screen. The iPad's built-in microphone is used as the input source for the RTA. Alternatively, an external mic connected to the headset jack can be used. Gain level is selected in the Setup Screen (refer to <u>10.15</u>).

When the [RTA ON] button is highlighted with a green background, a 61-band RTA or 121-band will be displayed as part of the GEQ Overview. The number of bands used for the RTA can be selected on the Setup screen (refer to 10.16).

# 5.3.5 RTA HOLD

Press the [HOLD] button to enable this function. The button will be highlighted with a yellow background. The RTA Hold mode is selected in the Setup Screen (refer to 10.14).

# 5.3.6 GEQ FLAT

The [FLAT] button will reset all GEQ bands to 0dB. A confirmation dialog will appear before this function is executed.

# 5.3.7 GEQ Copy/Paste

GEQ parameter settings can be copied and pasted from one GEQ to another. Press the [COPY] button to capture the parameter settings of the current GEQ. Navigate to another channel that has a GEQ assigned and press [PASTE].

Note: the [PASTE] button will only be available when a suitable GEQ has been selected. Only 31 Band GEQs that use up to 15 bands can be copied to a Flex 15 GEQ. Settings copied in the LS9 console cannot be pasted in StageMix.

# 5.3.8 GEQ ON

The [GEQ ON] button in the upper-right part of this screen turns the GEQ On or Off. The button appears blue when GEQ is On and turns grey when GEQ is Off. When Off, the GEQ display curve will also turn light grey.

#### 5.3.9 Editing GEQ Bands

Sliders in the lower portion of the GEQ screen allow each band of EQ to be edited. Multiple bands can be edited simultaneously with up to 10 bands appearing at any one time. Touch the silver sliders for one or more bands and move them vertically to adjust the gain for each band. The gain parameter value will appear in a floating display above any GEQ slider while it is being touched.

Note: sliders will become transparent and cannot be operated when there are no remaining bands available for a Flex 15 GEQ.

#### 5.3.10 Navigation in the GEQ Editing Section

In addition to navigation in the upper GEQ Overview section, swipe gestures can be used to navigate through the GEQ bands in the lower editing section.

To exit from the GEQ window and return to the Mixer window, press the [MIXER] button at the top-right of the display.

# 5.4 PAN TO STEREO BUSSES

When PAN mode is selected using the buttons described in section 5.0, all 8 thumbnail images will display a slider showing the position of the Pan to the Stereo Busses for each channel. A numeric Pan position value appears above each slider.

Double-tap on the slider to set the Pan position to Center.



Text shows whether each channel is assigned to the ST, Mono or the LCR busses.

- ST is displayed in red if the channel is assigned to the Stereo bus.
- M is displayed in yellow if the channel is assigned to the Mono bus.
- LCR is displayed in white if the channel is assigned to LCR.

Tap on these text labels to open a popup that will allow assignments to these busses to be edited.

#### 5.4.1 Balance

"BAL" will be displayed below the pan slider for Stereo Input channels. The pan slider is used to adjust the Balance.

Mix and Matrix Busses provide a Balance control when they are configured as stereo pairs. "BAL" will be displayed below the pan slider when a Mix or Matrix Bus is configured as a stereo pair.

# 5.5 DYNAMICS PROCESSORS

When DYN mode is selected using the buttons described in section 5.0, the status of both of the channel's dynamics processors can be seen:



Dynamics 1 is displayed at the top of the thumbnail with Dynamics 2 at the bottom. (Output channels have only Dynamics 1.)

The threshold parameter value for each Dynamics is displayed numerically and also graphically via a white vertical line.

A horizontal meter bar displays the input level to each Dynamics processor moving from left to right. This bar is dimmed if the Dynamics processor is Off.

Alternatively, this horizontal meter bar can display the level of the Key-In signal going to a dynamics processor. This can be selected for all channels globally using a Preference on the SETUP screen: Display Key Input for Dynamics Meters (refer to 10.13).

For all dynamics types except Gates, an orange horizontal meter bar displays the amount of Gain Reduction, moving from right to left. This bar is not visible when the Dynamics processor is Off.

For Gates, three color bars in green, yellow and red indicate the state of the Gate. Only one of these bars will be lit at any time depending on the opened/closed status of the Gate.

#### Dynamics Processor Type

When either Dynamics section is assigned to a Dynamics Type other than a Gate or Compressor, text will be displayed to indicate the Dynamics Type. The text labels are as follows:

DUCK = DUCKING EXP = EXPANDER DeES = DE-ESSER CMPND = COMPANDER

# 5.6 DYNAMICS PROCESSOR EDITING

Tap on any of the Dynamics thumbnails in the Mixer Window to access the Dynamics Editing screen.



The left side of this screen (Channel Strip) is identical to the EQ Editing screen with channel fader, On button, Cue button, input and output meters, channel name, color and navigation buttons.

Both Dynamics 1 and 2 can be viewed and edited simultaneously in the Dynamics Editing screen. A graphical curve for each dynamics processor displays the affect of non time-based parameters on the dynamics processor's behaviour. A gain reduction meter appears below each curve.

# 5.6.1 Default

The [DEFAULT] button resets the dynamics parameters to the default settings for the current type of dynamics processor.

# 5.6.2 Copy/Paste

The [COPY] button copies the dynamics processor settings. This includes the type of dynamics processor and its parameter values. The [PASTE] button pastes the settings to a dynamics processor in any channel.

Note: it is not possible to paste the dynamics processor settings to a dynamics processor that does not allow that type of processor to be assigned (e.g. a Gate cannot be assigned to Dynamics Processor 2). In this case, the [PASTE] button will be greyed out and inactive.

### 5.6.3 Dynamics On

The [DYN ON] button turns the Dynamics On/Off. This button is purple when On and grey when it is Off.

# 5.6.4 Dynamics Type

A button above each Dynamics curve display allows the Dynamics Type to be selected.



Press this button then select the Processor Type from the drop-down menu.

#### 5.6.5 Threshold

All Dynamics processors have a Threshold parameter. This parameter value is set using a vertical slider to the left of the Dynamics curve display. Next to the Threshold slider is a meter which displays the level of the Key In signal. By default, the Key In signal is the channel's own signal (Self), post EQ. But if the Key In is changed to any other signal, this meter will display that signal's level.

# 5.6.6 Range and Ratio

Depending on the Dynamics Processor type, a Range or Ratio parameter will be adjustable using a vertical slider to the right of the dynamics curve.

In and Out meters appear to the right of this vertical slider. The In meter displays the signal level going into each dynamics processor and the Out meter displays the signal level after dynamics processing.

# 5.6.7 Other Dynamics Parameters

All other dynamics processing parameters are adjusted using horizontal sliders below each dynamics curve.

For Compressor and Expander processors, the value for the Knee parameter is selected using a range of buttons ranging from Hard to 5.

#### 5.6.8 Key In

The Key In source is displayed at the bottom of each Dynamics section.

For Gate and Ducking processors, a Key In Filter is available. Tap the [EDIT] button to edit the Key In Filter parameters.



[CUE]: Tap this button to Cue the Key In signal

[HPF]/ [BPF]/ [LPF]: Select the Key In Filter type among these choices. [ON]: This button is used to activate the Key In Filter.

Press the [ASSIGN] button to access a pop-up that allows the Key In Source to be selected.



# 6.0 OUTPORTS

The OUTPORTS button provides access to the following functions:

- Output Port Delays
- Output Port Phase
- Output Port Gain

Press the [OUTPORTS] button on the left side of the Mixer window to enter this mode. Press the [OUTPORTS] button again to exit this mode.



# 6.1 Navigation

When the [OUTPORTS] button is active (highlighted in dark pink), the Navigation/Meter Bridge changes to display banks of output ports. Press any of the "Navigation/Meter Bridge" blocks to select the bank of channels to be viewed and controlled in the channel strips below.

Buttons on the right or left of the Navigation/Meter Bridge provide access to another set of output port banks if available.

# 6.2 Output Port Identification

At the bottom of each channel strip, the physical Output Port name is displayed. This is display-only and cannot be edited. An abbreviation of the Output Port name is also displayed on the fader knob.

The Output Bus number (e.g. Matrix 1) assigned to each Output Port is displayed at the top of each channel strip. The name of each Output Bus is displayed below its number.

# 6.3 Delay On

Press [DELAY ON] in each channel strip to change the On/Off status of the Delay for each Output Port. The button is yellow when the Delay is On (active).

# 6.4 Delay Time Display

The current delay time value for each Output Port is displayed in a button. The top value is always displayed in milliseconds.

Below the ms value, the delay value is also displayed in Meters, Feet or Samples. The choice depends on the currently selected delay scale.

Note: if ms is selected as the Delay Scale, then only the ms value is displayed.

Tap on this button to edit the Delay Time value (refer to 6.7)

# 6.5 Output Port Phase

A Phase button is available in each Output Port channel strip. The Phase setting can be edited by pressing this button. The button will have a grey background when the Phase setting is normal and will change to an orange background when Phase is reversed.

# 6.6 Output Port Gain

A fader in each channel strip allows the Output Port Gain to be adjusted in 1dB steps. The gain value is always displayed above each fader. Fine adjustments can be made by tapping on the dB value. This will cause a popup to appear that allows the gain value to be adjusted in 0.1dB steps by tapping the up or down arrows.


## 6.7 Delay Time Editor

Tap on any of the Delay Time Display buttons to access the Delay Time Editor. The button for the Output Port channel being edited will be highlighted in dark pink.

The currently selected Output Port, and the Output Bus and its name are displayed.



#### 6.7.1 Delay Scale

The currently selected Delay Scale is displayed next to the Output Port label. Press the downward arrow button to access a popup which allows the Delay Scale to be selected from the following options:

- Meters
- Feet
- Samples
- ms

## 6.7.2 Numeric Keypad

Tap on numbers in the keypad and they will appear in the format specified by the Delay Scale. The value will appear in red while numbers are being typed. Press [SET] to send the value to the currently selected Output Port.

## 6.7.3 Nudge Delay Time Values

Tap the Up and Down arrow buttons to increase/decrease the currently selected Delay Time value by one unit at a time. Press and hold either of these buttons to continuously adjust these values.

#### 6.7.4 Copy Delay Time Value

Tap the [COPY] button to copy the current delay time value into a buffer.

Note: the value cannot be copied while numbers are being entered from the numeric keypad (i.e. while they are appearing in red).

#### 6.7.5 Paste Delay Time Value

Tap the [PASTE] button and the value currently in the Delay Time Copy buffer will be pasted to the currently selected channel.

Note: if the Delay Scale has been changed since the delay time value was copied, it will no longer be available to be pasted.

#### 6.7.6 Close the Delay Time Editor

Tap the [CLOSE] button to close the delay time editor and return to the Output Port Gain fader screen.

# 7.0 UTILITY

Press the [UTILITY] button on the left side of the Mixer window to enter this mode.

Tabs at the bottom of the UTILITY screen provide access to the following functions:

[MUTE/TAP]

- MUTE GROUP MASTERS
- TAP TEMPO

[OSCILLATOR]

• OSCILLATOR

To exit from the UTILITY mode, press the [UTILITY] button, another mode button, or any bank in the "Navigation/Meter Bridge".

## 7.1 MUTE GROUP MASTERS

8 buttons are provided to function as Master switches for the console's Mute Groups. Press [MUTE GROUP X] to mute channels assigned to that Mute Group. The button will appear red when a group is muted.

The channel [ON] buttons in the Mixer Window will blink to indicate that a channel has been muted as part of a Mute Group.

Note: assignment of channels to Mute Groups must be done in the console.



# 7.2 TAP TEMPO

The Tap Tempo section in the Utility screen allows you to tap BPM values into effects in the console that include BPM parameters.

ТАР ТЕМРО	
05: REV-X Hall :	120 BPM
06: REV-X Room :	
07: Echo :120	
08: Mono Delay :120	TAP
	1772

Select the relevant effect from the list of 4 effects in the left side of this section. Effects which do not have a BPM parameter will be greyed out and cannot be selected.

Tap on the large button on the right side of the Tap Tempo section. The BPM value will be calculated by StageMix and transmitted to the selected effects in the console.

## 7.2.1 Multi-Select

Multiple effects can be selected allowing the BPM parameters to be set for all selected effects simultaneously. Set the MULTI-SELECT function to ON to enable selection of more than one effect simultaneously. The currently selected effects will be highlighted with white text on a blue background. Tap a highlighted effect to de-select it.

## 7.3 OSCILLATOR

The OSCILLATOR screen in the UTILITY mode allows you control all aspects of the Oscillator in the LS9 console.

# 7.3.1 Oscillator Assign

In the top part of the screen, an array of buttons allow you to assign the Oscillator output to any bus in the console. Each bus button displays the channel's number, name and color. Assignment to multiple channels simultaneously is allowed.

The [CLEAR ALL] button allows all Oscillator assignments to be cleared.

MIX 1 MX 1 MX 2	MIX 3 MX 3	MIX 4 MX 4	MIX 5 MX 5	MIX 6 MX 6	MIX 7 MX 7	MIX 8 MX 8
MIX 9 MX 9 MX 10 MX 10	MIX 11 MX11	MIX 12 MX12	MIX 13 MX13	MIX 14 MX14	MIX 15 MX15	MIX 16 MX16
MATRIX 1 MT 1 MT 2	MATRIX 3 MT 3	MATRIX 4 MT 4	MATRIX 5 MT 5	MATRIX 6 MT 6	MATRIX 7 MT 7	MATRIX 8 MT 8
STEREO L STEREO R ST L ST R	MONO MONO					
						CLEAR ALL
	LEVEL			-14dB		
OUTPUT	FREQ		o	1.00kHz		
	SINE	PINK NO	ISE BURS			
		MUTE/ TAP	OSCILLATOR			

## 7.3.2 Oscillator Output

The large [OUTPUT] button turns the Oscillator On or Off. A meter alongside this button displays the Oscillator's output level.

## 7.3.3 Oscillator Level Control

The horizontal LEVEL slider allows the Oscillator's level to be adjusted.

## 7.3.4 Oscillator Frequency

The horizontal FREQ slider allows the Oscillator's frequency to be adjusted.

Note: this parameter is only available when SINE mode is active.

## 7.3.5 Oscillator Mode

Three buttons allow the Oscillator mode to be selected:

- SINE
- PINK NOISE
- BURST NOISE

When either PINK or BURST NOISE mode is active, additional parameters are available to be edited. Press the [EDIT] button to access a popup which allows these related parameters to be edited. Refer to the console's reference manual for more details about those parameters.

# 8.0 EFFECT RACK

Press the [EFFECT] button on the left side of the mixer window to enter this mode.

An overview of the console rack is displayed, this is used to access editors for GEQs and Effects.

Press the [EFFECT] button again to return to the Mixer view.

Note: GEQs can also be accessed from channels strips as described in section  $\underline{5}$ .

CURRENT SCENE	FX RACK 1 31 Band GEQ	CH28 IN51 ch28		ON	IN OUT	CH28 INS1 ch28
Initial Data	FX RACK 2 31 Band GEQ	CH1 INS1 ch 1		ON	IN OUT	CH1 INS1 ch 1
SETUP CUE CLEAR	FX RACK 3 31 Band GEQ	CH11 INS1 ch11		ON	IN OUT	CH11 INS1 ch11
OUTPORTS UTILITY	FX RACK 4 31 Band GEQ	NONE NONE		ON	IN OUT	NONE NONE
EFFECT	FX RACK 5 EFFECT	MIX13 MX13 CH28 INS1 ch28	Reverb Hall Reverb Hall [11N/20UT]	BYPASS	Tuo ni	NONE NONE NONE NONE
	FX RACK 6 EFFECT	MIX14 MX14 NONE NONE	Reverb Room Reverb Room [11N/20UT]	BYPASS	IN OUT	ST IN 2R st2R CH17 ch17
SENDS ON FADERS	FX RACK 7 EFFECT	MIX15 MX15 NONE NONE	Reverb Plate Reverb Plate [11N/20UT]	BYPASS	IN OUT	CH10 ch10 CH18 ch18
HA GAIN	FX RACK 8 EFFECT	MIX16 MX16 NONE NONE	Mono Delay Mono Delay [11N/20UT]	BYPASS	в ол	NONE NONE NONE NONE

## 8.1 Rack Overview

On the left side of each rack slot, a text label identifies the assignment of that slot:

- 31 Band GEQ
- Flex 15 GEQ
- Effect

Note: this information is display only. The assigned Rack Module cannot be mounted from StageMix.

## 8.1.1 Rack Patching

Text labels on the left side and right side of each rack slot indicates the assigned input and output patch for that rack slot. This information is

display only. If multiple output patches are in use for any slot, only the first output patch is displayed in StageMix.

# 8.1.2 Accessing GEQ/FX Editor

For GEQs, the parameter values are displayed in the center of each rack slot. Tap on this section to access the GEQ Editor.

If an FX is mounted in any of slots 4-8, the FX type is displayed in the center of the rack slot along with a graphical image icon. Tap on this image to access the FX Editor. Refer to section 8.2 for editing FXs.

## 8.1.3 GEQ Editing

GEQ parameters can be edited as described in section 5.3

Press the [X] button in the upper right corner of the screen to return to the Rack Overview screen.

## 8.1.4 GEQ ON

Each GEQ can be switched ON or OFF using the button to the right of the graphical display.

#### 8.1.5 Rack Metering

To the right side of the [ON] button, meters display the audio level going into and out of each rack slot.

#### 8.2 Effect Editing

Parameters for all effect programs can be fully edited from StageMix. For some selected programs, a graphical editing interface is also provided.



#### 8.2.1 Current Effect

The Effect type icon for the currently selected rack slot is displayed in the upper left side of the Effect Editing screen. Next to the Effect's icon is the following information:

- Rack Slot Number
- Effect Program Title
- Effect Type
- I/O Configuration

#### 8.2.2 Effect Type Selection

Press the FX icon in the upper left side of the Effect Editing Screen to open a selection menu of available Effect types. Press on an Effect type and this Effect will be loaded into the currently open Rack. Alternatively, press [CANCEL] to return to the current Effect Editor without selecting a different Effect.

#### 8.2.3 Effect Library

Press the [LIBRARY] button to access the Effect Library.

Effect Library Recall: Select a program from the list and press [RECALL] to assign that effect to the currently selected slot. A popup will appear requiring confirmation before the effect library program is recalled in the console. Effect Library Store: Tap on any Library memory that is not labelled as Read Only. Press [STORE] to save the currently selected effect program into the Library. A popup will appear requiring confirmation. After tapping on [Yes], the iPad keyboard will appear. Type in a Library Name and press [STORE].

# 8.2.4 Input and Output Patch Assignments

At the top/center of the screen, text labels indicate the input and output patch assignments for the current rack slot.

## 8.2.5 Input and Output Meters

Meters display the levels going into and coming out of the current rack slot.

## 8.2.6 Effect Bypass

The current Effect can be bypassed by pressing the [BYPASS] button.

#### 8.2.7 Effect Cue

The current Effect can be Cued by pressing the [CUE] button.

#### 8.2.8 Close Effect Editor

Press the [X] button in the upper right corner of the screen to return to the Rack screen.

#### 8.2.9 Parameter Editing using Sliders

Most parameters are editing using horizontal sliders. The parameter value is displayed numerically to the right of each slider.

#### 8.2.10 Numerical Parameter Editing

Some time-based parameters can also be edited using a numeric keypad. These parameters are displayed with black text on a white button.



Tap the button to open the number keypad. Tap the Up/Down cursor buttons to adjust the parameter value one step at a time. The value will be sent to the console each time the cursor button is tapped.

Alternatively, type values into the number keypad and press [SET] to send the value to the console and close the keypad.

#### 8.2.11 Multi-Segment Buttons

Some parameters are represented and edited using multi-segment buttons:

DST1	DST2	OVD1	OVD2	CRUNCH

## 8.2.12 Accessing Parameters

Effect parameters in StageMix are grouped according to function. Headings such as TIME/LEVEL, SPACE, FILTERS, etc. appear above each set of parameters in the slider editing section. Tabs at the bottom of the screen can be tapped to jump to that group of parameters. (Tap on the parameter group name or its associated dot.)

If all of an Effect's parameters cannot be viewed in the screen simultaneously, white arrows will appear above or below the sliders. Swipe up or down to access the additional sliders.

#### 8.2.13 Additional Parameters

Some Effect programs have additional parameters relating to various functions including: Solos, Sync, MIDI Clock, Notes, Tap Tempo, Transport Play/Record, Stereo Link, etc.. These parameters are located in the lower left side of the Effect Editor.

#### 8.2.14 Wet/Dry Mix

The balance between the wet and dry effect sound can be adjusted using a slider in the lower right corner of the Effect Editor screen.

# 8.3 GRAPHICAL EFFECT EDITING

For selected Effects, graphical user interface editing is also provided as an alternative to the slider-based editing. Press the [GUI] button above the parameter values to reveal the graphical editing interface. Graphical editing is provided for the following Effects Types:

- REV-X HALL
- REV-X ROOM
- REV-X PLATE
- REVERB HALL
- REVERB ROOM
- REVERB STAGE
- REVERB PLATE
- STEREO REVERB
- MONO DELAY
- STEREO DELAY
- MOD DELAY
- DELAY LCR
- ECHO

# 8.3.1 REV-X Time/Level Parameters

Tap the [TIME/LEVEL] tab at the bottom of the screen to access those parameters. Drag the following parameters horizontally to adjust their values:

- Reverb Time
- Initial Delay
- Decay

The affect of those parameter changes will be reflected in the graphical display. Tap on the buttons above the graphical display to adjust the zoom factor.



## 8.3.2 REV-X Space Parameters

Tap the [SPACE] tab at the bottom of the screen to access those parameters. Drag the following parameters vertically or diagonally to adjust their values:

- CURRENT SCENE IN MIX 13 CH28 INS1 LIBRARY BYPASS REV-X HALL 6 **REV-X Hall** 000 REV-X Hall OUT NONE CUE E [2IN/2OUT] Initial Data GUI Diffusion SETUP FILTERS HPF THRU THRU Low Ratio High Ratio Low Frequency 225.00Hz SPACE HA GAIN TIME/LEVEL FILTERS . • .
- Room Size
- Diffusion

# 8.3.3 REV-X Filter Parameters

Tap the [FILTERS] tab at the bottom of the screen to access those parameters. Drag the following parameters to adjust their values:

- HPF
- LPF
- Low Ratio
- High Ratio
- Low Frequency



# 8.3.4 REVERB Time/Level Parameters

Tap the [TIME/LEVEL] tab at the bottom of the screen to access the following parameters:

- Reverb Time
- Initial Delay
- E/R Delay
- E/R Balance



# 8.3.5 REVERB Space Parameters

Tap the [SPACE] tab at the bottom of the screen to access the following parameters:

- Density
- Diffusion



# 8.3.6 **REVERB Filter Parameters**

Tap the [FILTERS] tab to access the following parameters:

- HPF
- LPF
- Low Ratio
- High Ratio

## 8.3.7 REVERB Dynamics Parameters

Tap the [DYNAMICS] tab to access the following parameters:

- Gate Level
- Attack
- Hold
- Decay



## 8.3.8 STEREO REVERB Program

This program differs from other Reverb programs in a few ways:

- The Reverb Type parameter is only editable in the slider editor
- There is no E/R Delay parameter for this effect
- There is no Dynamics section for this effect

# 8.3.9 MONO/STEREO/MOD DELAY Parameters

Tap the [TIME/LEVEL] tab to access the following parameters:

- Delay
- Feedback Gain



Tap the [FILTERS] tab to access the following parameters:

- HPF
- LPF
- High Ratio

For the MOD DELAY program only, tap the [MODULATION] tab to access the following parameters:

- Frequency
- Depth
- Wave

Use sliders to adjust the Frequency and Depth parameters, and the multi-segment button to select the Wave type.

# 8.3.10 DELAY LCR Parameters

There are 5 tabs at the bottom of the screen to provide access to parameters for the Delay LCR program.

Tap the [L], [C] or [R] tabs to access the following parameters:

- Delay (drag the dot()) horizontally)
- Feedback Delay (drag the dot()) horizontally)
- Feedback Gain (drag the dot()) vertically)
- Level (drag the dot() vertically)

Tap the [Feedback] tab to access the following parameters:

- Feedback Delay
- Feedback Gain

Tap the [FILTERS] tab to access the following parameters:

- HPF
- LPF
- High Ratio

## 8.3.11 ECHO Parameters

Tap the [TIME] tab to access the following parameters:

- Delay L
- Delay R
- FB Delay L
- FB Delay R
- Feedback Gain L
- Feedback Gain R

Note: The L->R FBG and R->L FBG parameters can only be edited using the sliders – not in the GUI editor.

Tap the [FILTERS] tab to access the following parameters:

- HPF
- LPF
- High Ratio

# 9.0 SCENE MEMORY

The Current Scene Memory number and title (name) are displayed in the upper-left corner of the StageMix Mixer window. An "E" indicator will be displayed if the Scene has been edited since it was last stored or recalled.



The Scene Memory area in the Mixer window also functions as a button which can be pressed to access the Scene Memory window.

CURRENT SCENE		MIXER
002 TITLE Introduction COMMENT Comments about this Sc	ene DEC SCE	
SCENE LIST	FIRST SCENE : 0	LAST SCENE : 300 SCENE RANGE
000: Initial Data	SCENE TITLE	SCENE STATUS
001: Setup	Introduction	FOCUS FADING
002: Introduction	SCENE COMMENT	
003: First Song	Comments about this Scene	
004: Acoustic Set	TIME STAMP	
005: Intermission	18:16:11 13 July 2011	ومعارفه والمعادة والمعالم والمعاد
006: 2nd Half		
007: Drum Solo	UNDO STORE	UNDO RECALL
008: Big Finale		
009: last song		
010: Alt Line-up	STORE	RECALL
011: Another Encore	na serie de la companya de la compan La companya de la comp	na se anna anna anna anna anna anna anna

# 9.1 CURRENT SCENE

The Current Scene Memory number and title also appear in the upper part of the Scene Memory window. The Scene Comment also appears in this area.

# 9.2 DECREMENT / INCREMENT SCENE

Buttons in the upper right part of the Scene window allow instant recall of the Previous and Next Scene relative to the current Scene. For example, if the Current Scene is 005, pressing the [INC SCENE] button will recall Scene 006

in the console. However, if Scene 006 is empty, the next highest Scene containing data will be recalled.

Note: the [DEC SCENE] and [INC SCENE] buttons will only appear in the Scene window if the related preference has been enabled in the Setup window (refer to <u>10.3</u>).

## 9.3 SCENE LIST

When the Scene Memory window is accessed for the first time after launching StageMix, the Scene List will be sent from the console to StageMix.

Note: if StageMix loses its Wi-Fi connection to the console, the Scene List will need to be sent from the console again after the connection is re-established.

12 Scenes can be viewed simultaneously in the Scene List. Drag up and down in the list to access other Scenes.

The Current Scene will be indicated by a check mark to the right of the Scene Title (the current scene is also displayed in the upper left portion of the Scene screen). Empty Scene Memories locations will be displayed with a grey background. Scene titles that have not been sent from the console to StageMix will be indicated by a question mark.

## 9.4 SCENE RANGE

If the console contains a large number of Scenes, it may take some time for the complete Scene List to be transmitted to StageMix. To minimize the time required to update the Scene List in StageMix, a Scene Range can be set so that only necessary Scenes are sent from the console to StageMix.

By default, the Scene Range is set to the full range from Scene 0 to 300. By pressing the [SCENE RANGE] button, the user can define the range of Scenes that will be updated in the Scene List. This range will be remembered by StageMix and will continue to be used until it is changed.

To update the Scene Range, tap the [SCENE RANGE] button on the right side of the Scene Memory window. A small popup will appear. Tap the [FIRST] or [LAST] button to access the iPad's onscreen keyboard. Enter a number for the First and/or Last Scenes in the Range and press Return. Then press the [UPDATE RANGE] button in this popup to update the Scene List based on the currently active range.

## 9.5 SELECTED SCENE

Selecting a Scene in the Scene List will cause it to be displayed in white text with a blue background. Further details about this selected Scene will be displayed to the right of the Scene List. These details include the following:

## SCENE TITLE

The scene title can be edited by tapping on the title. The iPad's keyboard will appear. Tap the X button next to the title to clear the current title before typing in a new title. Then press Return.

#### SCENE COMMENT

The Scene Comment is displayed and can be edited using the same procedure described for the Scene Title.

#### TIME STAMP

This shows the time and date that the Scene was last stored. The Time Stamp is display-only.

#### SCENE STATUS (FOCUS and FADING)

This section displays the status of Focus and Fade Time functions for the selected Scene Memory.

## 9.6 STORE SCENE

Pressing the [STORE] button will cause the current console parameter settings to be stored to the currently selected Scene Memory (highlighted in the Scene List).

- a) Press [STORE] and the iPad's onscreen keyboard will appear.
- b) To enter a new title for this Scene, tap the X button next to the Scene Title to clear the current title.
- c) Type in a new title and press the [STORE] button or Return on the keyboard.
- d) A confirmation popup will appear if the STORE CONFIRMATION preference is ON in the console.

## 9.7 UNDO STORE

Pressing the [UNDO STORE] button will cancel the most recent Scene Store operation.

## 9.8 RECALL SCENE

Pressing the [RECALL] button will cause the currently selected Scene Memory (highlighted in the Scene List) to be recalled by the console. A confirmation popup will appear if the RECALL CONFIRMATION preference is ON in the console.

When a Scene Memory is recalled by the console, StageMix must synchronize itself with the current console parameter data. The status of this synchronization will be indicated by a progress bar which appears below the Current Scene number in the upper left section of the Scene Memory screen. You can exit the Scene Memory screen while synchronization is occurring but you will not be able to edit any parameters in StageMix until synchronization has been completed.

# 9.9 UNDO RECALL

Pressing the [UNDO RECALL] button will cause the most recent Scene Recall to be cancelled. StageMix will need to synchronize with the console after executing a Scene Recall UNDO.

Press the [MIXER] button in the top-right corner of the Scene Memory window to return to the Mixer window.

# **10.0 SETUP**

Press the [SETUP] button in the upper left area of the Mixer window to open a new window which allows user preferences to be selected.

#### iPad Status Bar

The iPad's Status Bar is visible in this screen, allowing the Wi-Fi signal strength and the battery charge status to be viewed.

iPad 夺		15:	02		100% 📟	••
About					Done	
GENERAL			CH SELECT			
Fader Delay		0.20 sec	StageMix Follows Console			
Filled EQ Graph			Console Follows StageMix			
Enable Inc/Dec Scene Recall			METERS			
Show Send Levels in Meter Bridge			Input Meter Point	PRE HPF PRE FA	DER POST ON	
Enable Phantom Power Switching			Output Meter Point	PRE EQ PRE FA	DER POST ON	
Set EQ band to 0dB with Double-Tap	OFF		Display Key Input for Dynamics Meters			
Show dB Markings on Mixer			RTA			
			Peak Hold Mode	Freeze All Pe	aks High Peak	
CUE			Input Gain	-24dB -12dB OdB	12dB 24dB	
Cue Mode	MIX CUE LAST CUE		Number of Bands	61-band	121-band	

Press [Done] in the top-right corner to return to the Mixer window.

## 10.1 Fader Delay

This is a safety function to avoid accidental fader movements. The value set here is the time needed to wait between touching a fader and being able to move it.

## 10.2 Filled EQ Graph

When this preference is ON, the EQ graph will be filled in, as it is on the LS9 screen. When it is off, only the outline of the graph will be shown.

## 10.3 Enable Inc/Dec Scene Recall

When this preference is ON, buttons will appear in the Scene Memory screen that allow instant recall of the Next or Previous Scene Memory. Refer to section <u>9.2</u> for more details.

#### 10.4 Show Send Levels in Meter Bridge

When this preference is ON, the send levels for the currently selected "MIX ON FADERS" will appear in the "Navigation/Meter Bridge" in "SENDS ON FADERS" mode. If this preference is OFF, the input levels will be displayed.

#### 10.5 Enable Phantom Power Switching

When this preference is ON, phantom power for each input channel can be turned On or Off while in GAIN mode in the Mixer window. If this preference is OFF, phantom power indicators will be display-only.

#### 10.6 Set EQ band to 0dB with Double-Tap

When this preference is ON, Parametric and Graphic EQ Gains can be set to 0dB by double-tapping on the EQ band.

#### 10.7 Cue Mode

When the [LAST CUE] button is highlighted yellow, only one channel can be cued at a time. When [MIX CUE] is highlighted, multiple channels can be cued simultaneously.

#### 10.8 Show dB Markings on Mixer

When this preference is ON, dB fader level markings will be displayed in the main Mixer Screen.

#### 10.9 Channel Select – StageMix Follows Console

When this preference is ON, the currently selected channel in the StageMix Parametric and Graphic EQ screens will follow the Selected Channel in the LS9 console.

#### 10.10 Channel Select – Console Follows StageMix

When this preference is ON, the Selected Channel in the LS9 console will follow the currently selected channel in the EQ screens of StageMix.

#### 10.11 Input Meter Point

Metering for Input Channels in StageMix can be taken from one of three points in the signal path:

- Pre HPF
- Pre Fader
- Post On

## 10.12 Output Meter Point

Metering for Output Channels in StageMix can be taken from one of three points in the signal path:

- Pre EQ
- Pre Fader
- Post On

#### 10.13 Display Key Input for Dynamics Meters

When this preference is ON, the input meters displayed in the Dynamics Processor thumbnails in the Mixer window will show the level of the Key Input signal for every Dynamics Processor. If this preference is Off, the input signal going into the Dynamics Processors will be displayed.

#### 10.14 RTA Peak Hold Mode

An RTA Hold function is available in the PEQ and GEQ editing screens. The mode for this function is selected in the Setup screen.

#### <u>Freeze</u>

When this mode is selected, the RTA display will "freeze" at the moment the [RTA Hold] button is pressed.

#### All Peaks

When this mode is selected, the highest level for each RTA frequency band will be displayed in red, behind the current RTA levels which are displayed in grey.

#### High Peak

When this mode is selected, only the frequency band which has been measured at the highest level will be displayed in red, behind the current RTA levels which are displayed in grey.

#### 10.15 RTA Input Gain

Input Gain or Attenuation can be applied to the RTA input signal in order to allow the range of the RTA to be more usefully displayed within the PEQ or GEQ editing screens. The following gain levels are available:

- -24dB
- -12dB
- 0dB
- 12dB
- 24dB

#### 10.16 RTA Number of Bands

The number of bands displayed in the RTA can be selected as either 61-band or 121-band.

# **11.0 Troubleshooting**

#### 11.1 No Wi-Fi Available

If this message appears after launching StageMix, this indicates that the iPad is not connected to a Wi-Fi access point or that Wi-Fi may be switched off in the iPad. Refer to sections 2.0 and 3.2 for details about Wi-Fi hardware configuration and iPad Wi-Fi settings.



# 11.2 Connection Error

If this message appears after selecting a mixer and pressing [CONNECT], this indicates that StageMix cannot connect to the console. This may be due to incorrect IP Address or MAC Address settings in either the console or StageMix. Verify that the settings in the console match the settings in StageMix. Refer to <u>3.1</u> and <u>3.3.2</u> for details about these settings. This problem will also occur if the console is not turned On.

		elect Mixe	r	
	I <b>b Mixer</b> 9-16			$\odot$
13.22.0	<b>9 Monitors</b> 9-32			٢
	Coni	nection E	rror	
	Connection ADD MIXER	n failed. Ch Status		R

# **11.3 Connection Lost**

If StageMix loses its connection to the console, the following message will appear. Operation of StageMix is not possible while this message box is onscreen. StageMix will automatically attempt to reconnect to the console. If this is successful, StageMix will re-synchronize with the console data and operation will become available again.



## 11.4 DHCP Server Setup on WAP/Router

- a) Log onto the web control page of your Wireless Access Point or Router using a web browser.
- b) Enable the DHCP server.
- c) Set the upper and lower limits of the IP addresses the DHCP server can assign.
- d) Ensure your console's IP address is outside this range, or reverse its IP address (e.g. DHCP range 192.168.0.2 to 192.168.0.127 when the console's IP address is 192.168.0.128)

Note: not all Wireless Access Points will feature a DHCP Server. In those cases, please setup your iPad using a Static IP Address.

## 11.5 "Redirect to Internet" Problem with iOS 6 or higher

Since the release of iOS 6 or higher, your iPad may try to access the Internet at the time of selecting a Wi-Fi network. Depending on the set-up or model of your Wi-Fi device (Router or Access Point), the message "cannot connect with the Internet" may appear on your iPad screen and StageMix might be unable to connect with a console. Internet access is unnecessary for the connection between StageMix and console and it is recommended that you should not have an internet connection when using StageMix. So if you experience this problem, you can prevent this message from appearing by disabling the "Redirect Function for Internet connection" in your Wi-Fi device. Please ask the Wi-Fi device manufacturer about the way to disable "Redirect Function for Internet connection".

## 11.6 Graphic EQ Doesn't Affect the Sound

If a Graphic EQ is assigned to an input channel or Mix/Matrix bus but it doesn't seem to be affecting the sound on that channel, it could be that the Insert for that channel has been switched Off. Check the state of the Insert ON switch in the console.

#### 11.7 Problems Moving Multiple Faders

If Multitasking Gestures is ON, it may not be possible to move more than three faders simultaneously in StageMix. When using StageMix, it is recommended that Multitasking Gestures be turned OFF.

- a. Open the iPad "General" menu
- b. Set the button for "Multitasking Gestures" to OFF

If the "Zoom" function in the "Accessibility" menu is ON, it may not be possible to move more than two faders simultaneously in StageMix. When using StageMix, it is recommended that "Zoom" be turned OFF.

a. Open the iPad "General" menu.

b. Select "Accessibility," and then set the button for "Zoom" to OFF.

#### 11.8 StageMix Facebook Page

To exchange information and tips with other StageMix users, please visit our Facebook page: <u>http://www.facebook.com/StageMix</u>

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