eMOTION LV1 CLASSIC

Quick Start Guide

WAVES

Safety and Precautions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.

PROTECT YOUR MIXING CONSOLE (AND YOURSELF)

- Do not block any ventilation openings.
- Do not block the fan openings.
- Do not block the openings on the bottom.
- Do not place the console on an unstable surface
- Do not use the console near water. Do not spill liquids on the surface or in the openings
- Plug the unit only into a grounded outlet that complies with local norms. Never defeat the ground pin.
- Avoid placing heavy objects on the control surface, scratching the surface or touch screen with sharp objects, or rough handling and vibration.
- Protect the equipment from damage through liquid or dust contamination. Cover the mixer when it is not being used for extended periods.
- To reduce the risk of fire or electric shock, do not expose the console to rain or moisture. Do not place objects filled with liquids, such as vases, on the console.
- Unplug the console during lightning storms or when it is not being used for extended periods.

PAY ATTENTION TO THE OPERATING ENVIRONMENT

- Do not place the console in direct sunlight
- Do not install near any heat sources such as radiators, heat resistors, stoves, or other equipment (including amplifiers) that produce heat.
- If the equipment has been stored in sub-zero temperatures, allow time for it to reach normal operating temperature before use at the venue. Recommended operating temperature for eMotion LV1 Classic is 5 to 35 degrees Celsius.
- Avoid using the equipment in extreme heat. Make sure the mixer ventilation slots are not obstructed and that there is adequate air movement around the equipment.

KEEP YOUR EMOTION LV1 CLASSIC LOOKING GOOD

- Clean the console only with a dry cloth.
- Do not use chemicals, abrasives, or solvents. Avoid the use of spray cleaner in the faders.
- Clean the screen only with products approved for touch screens.
- Do not place naked flame sources (such as lighted candles or cigarettes) on the console.

SERVICE

This unit contains no user-serviceable parts. Refer all servicing to a qualified service engineer, through the appropriate Waves dealer. Servicing is required when the console has been damaged in any way, such as when liquid has been spilled into the unit, objects have fallen into it, it has been exposed to rain or moisture, it does not operate normally, or it has been dropped.

Waves does not accept liability for damage caused by maintenance, repair or modification by unauthorized personnel.

eMotion LV1 Classic
Live Mixing Console

Getting Started

eMotion LV1 Classic is a mixing console for live sound, including front-of-house, monitor, and broadcast applications. There are 64 mixer channels and 16 built-in analog I/O channels, with easy I/O channel expansion using SoundGrid interfaces. It can host up to eight plugins per channel or buss, while maintaining ultra-low system latency and unrivaled audio quality.

eMotion LV1 Classic provides industry-leading sound quality, seamless plugin integration, and all the functionality of a full-sized mixing console.

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Welcome to eMotion LV1 Classic

Main Features

- 64 stereo/mono input channels, 44 buss/return channels
- 16 DCA faders, 8 mute groups, 18 user-assignable shortcut keys
- 16 Waves Signature preamps; 12 line outputs
- 16 Monitor auxes and 8 FX auxes (stereo/mono), 8 audio groups, L/R/C/Mono, 8 matrixes (stereo/mono)
- 16+1 motorized faders and multipurpose encoders
- Up to 8 SoundGrid compatible plugins can be inserted on each channel.
- eMotion LV1 Classic built-in processors include industry-leading EQ, dynamics, real-time vocal pitch correction, dynamic EQ, feedback elimination, reverbs and delays, and more.
- Internal low-latency Intel-based Waves SoundGrid DSP server
- Easily add I/Os and servers and integrate with other eMotion LV1 systems.
- Dugan Speech Automixer (optional)
- eMo IEM for enhanced, immersive in-ear monitoring (optional)
- Remote mobile/tablet applications available.

Refer to the eMotion LV1 Classic specifications page at the end of this document for details.

What's Included with eMotion LV1 Classic?

What's in the Box?

eMotion LV1 Classic 64 channel mixing console
Power cables (2)
Documentation

eMotion LV1 Classic includes these processors:

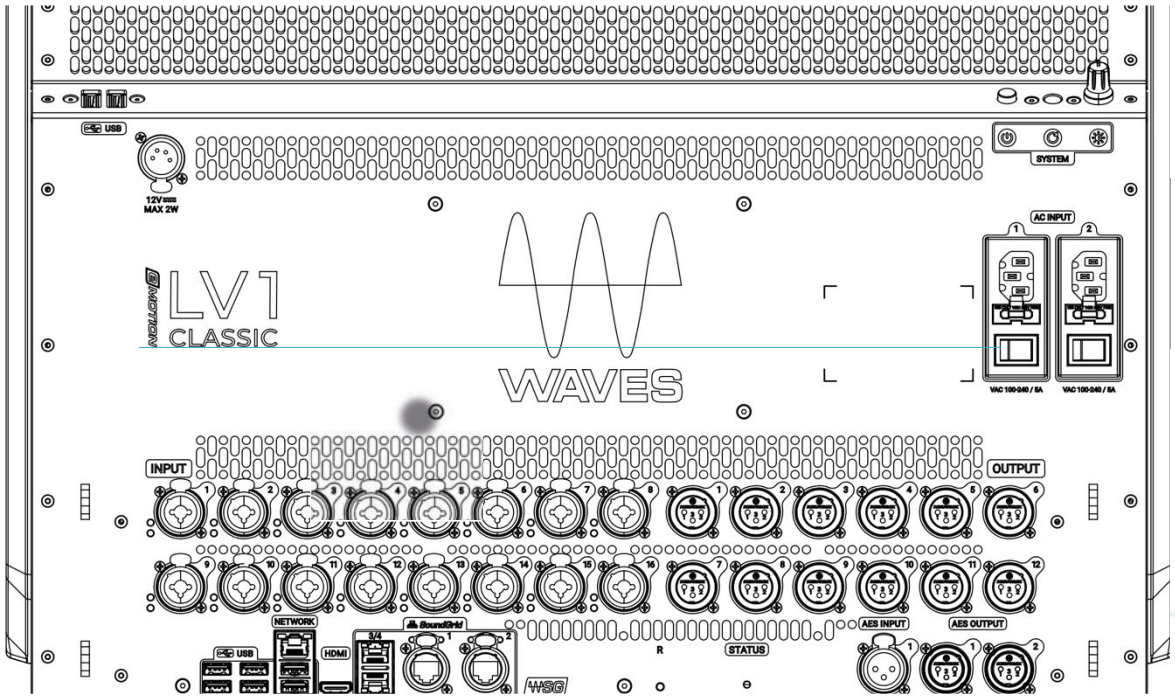
Doubler
eMo D5 Dynamics
eMo F2 Filter
eMo Generator
eMo Q4 Equalizer
F6 Floating-Band Dynamic EQ
GEQ Graphic Equalizer
GTR3
H-Delay Hybrid Reverb
Magma Tube Channel Strip
Renaissance Bass
Renaissance Comp
Renaissance Reverb
Primary Source Expander
True Verb
Waves Tune Real-Time
X-FDBK

Additional plugins are available with Waves Live perpetual plugin bundles. The entire Waves plugin catalog is available with a Waves Creative Access subscription. Refer to www.waves.com for more information.

Connections

Rear Panel

All connections, except headphones, are made on the rear panel.



Mains in: 115v/230v; 50/60 Hz, PSU on/off

quit, reset console, brightness

3 ine inputs x16

g outputs x 12

nput/output

atus light (internal connections)

dGrid network ports
herCON x2; RJ-45 x2)

8 for external display

ports x 6; network connection

power connector for lamp

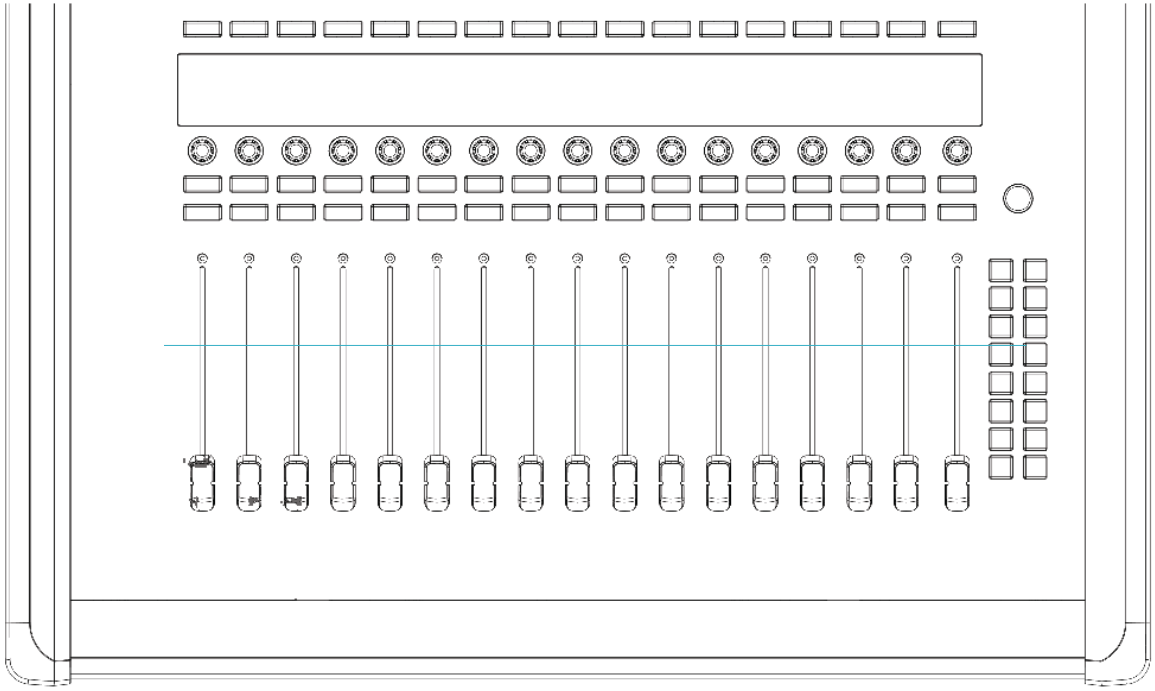
11 orts x 2

Front Panel

TRS 1/4″ headphone jack x 1, TRS 1/8″ headphone jack x 1; headphones volume control

Controls

Faders



Channel Select Button

Click the User button to toggle between Channel (default) and User-Assigned Keys.

Rotary Encoders

Control pan or gain or plugin mapping

16+1 10mm Motorized Faders

Shortcuts (user-assignable)

Touch and Turn

Maps to selected control for immediate access.

Touch Screen

eMotion LV1 Classic is controlled primarily with its touchscreen interface. The screen is organized by windows, pages (tabs), and sections. Windows are th most fundamental level of organization, and each window provides specific processing, routing, or organization. The selected channel name and preset menu are on the left side of the Top Bar. Scene control and system status indicators are on the right.

Select a window with the tabs at the top of the display.

Mixer 1 and Mixer 2	ouchscreen fader bank with extensive control over multiple channels.
Show	anages scenes and sessions and sets recall safe for functions, channels, and busses.
Setup	tablishes overall mixer settings and user preferences. The System Inventory page is where I/O devices d servers are assigned to the mixer.

Mixer Basics

Startup/Shut Down

Power up LV1 Classic using the "soft" power switch at the top of the rear panel.

To safely shut down LV1 Classic, hold the "soft" power switch for five seconds. Alternatively, click "Shut Down" in the Setup window's bottom left corner. It may take several seconds for all components to shut down completely.

The switch on each of the mains connectors turns the redundant power supplies on or off, it does not power up the console.

First View

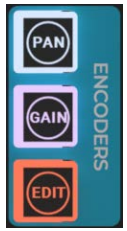
By default, eMotion LV1 Classic displays the **Mixer 1 Window**. This is where preamps, pan, channel gain, mixer modes, aux sends, routing, and plugins processing can be controlled. Further control and configuration option are instantly available using the Top Bar.

The example on the left shows the Input mode of the Channels 1–16 layer. This is where you control microphone preamps and channel trim.

On the Fader Bank

To **select a channel**, push the Channel Select button at the top of the channel strip (or touch the corresponding fader). The name of each channel is shown on its scribble strip.

A white bar at the top of the scribble strip identifies the selected channel.



Use the **Encoders Mode** buttons to choose the function of the knobs at the top of the channel strips (Pan, Gain, or Edit). When *Edit* is selected, each encoder is assigned a plugin control; parameter names and values are shown on the scribble strip.

Select a **Mixer Layer**. The eMotion LV1 Classic mixer is organized into layers, each of which provides a unique view of the channels, routing, or processing options.

- **Ch 1–16**, **Ch 17–32**, **Ch 33–48**, **Ch 49–64**: view and control all mixer channels in pages of 16 channels
- **GRP/FX** and **Monitor**: view and control Aux channels
- **Masters**: controls output mixes (LR/Center/Middle), Cue and Talkback, Matrix
- **Link/DCA**: controls link groups and DCAs. This layer does not pass audio; it is a control layer
- **Custom**: allows you to construct a layer made up of any channel
- There is also a **Spill** layer that displays all channels in the selected link group.

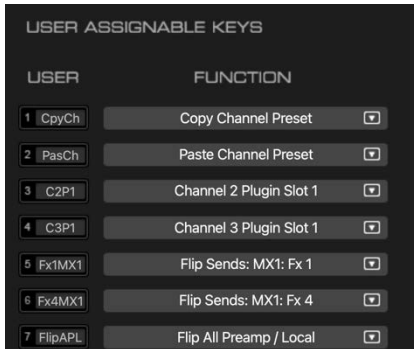
On the touch screen:

Mixer **Modes** set what sort of processing or routing is carried out on the selected Mixer layer. (The Mode selection panel is visible from all views.)

- **Input** controls input gain and preamps.
- **Dyn/EQ** mode provides a summary of assigned dynamics and EQ processors per channel.
- **EFX** and **MON** modes are used to control aux sends for processing and monitors.
- **Route** sets internal routing.
- **Channel** provides a complete view of all settings of a selected channel.

Setup Window

Create User-assignable Keys (Setup window)



You can create user-assignable keys for LV1 functions, which you can trigger from the touch screen Mixer window or from the Fader Bank.

Assign commands in the U/I Settings page of the Setup window.

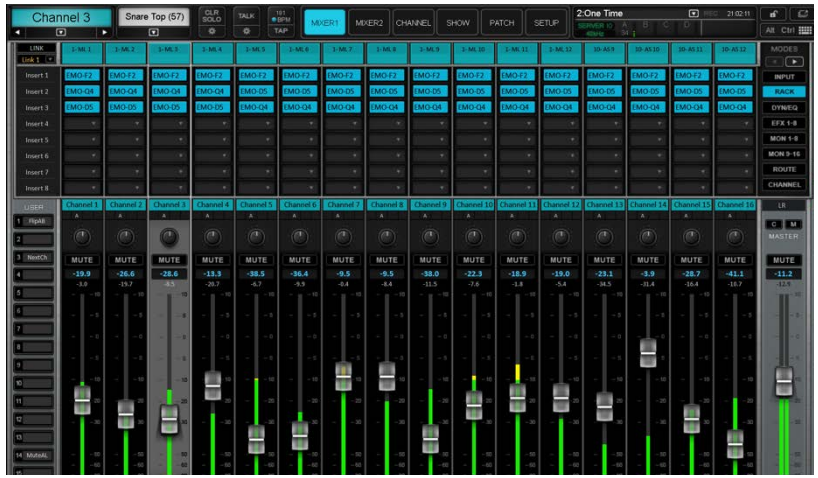
Assign a channel to **Mute Groups**, **Groups**, **Matrix** and **Links (**Channel window)

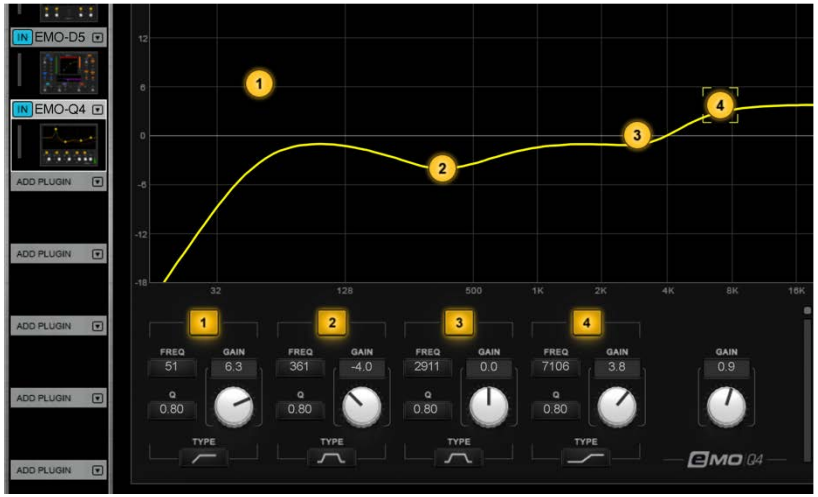
These groups let you mute selected channels together; control the path of many mixer channels; route channels for controlled, flexible output paths; and link faders of several channels.

There are, of course, many possibilities and many tools, but this overview will get you started. The next section, *Getting Things Done*, provides some examples of using the console.

Getting Things Done

Use Plugins to Process Channels





Every mixer channel is provided with three essential plugins:

eMo Q4 4-band equalizer; eMo D5 dynamics processor; eMo F2 HP/LF filters

You can access plugins form the Channel window or the Mixer window. In this example, we will start in the Mixer.

To view the plugins in a mixer layer, select the **Rack** mode, and then select the channel that you want to

ocess.

› open a plugin's processing pane, click on a **ugin name icon** in the Mixer window. This takes you to the plugin in the Channel window. In this example, we opened the eMo Q4 4-band equalizer on Channel 1.

Touch any **plugin control** on the touchscreen to adjust plugin settings.

When a plugin is displayed, you can control plugin parameters from the fader bank. Click Edit in the encoders mode section. Plugin controls are mapped to the channel encoders.

Control the Channel Main Processing

The three eMo plugins are combined in the Main Channel Processing view. This lets you work interactively with these go-to plugins. When viewing a single eMo plugin, click the Back to Main button in the upper-left corner of the window to return to the Main view.

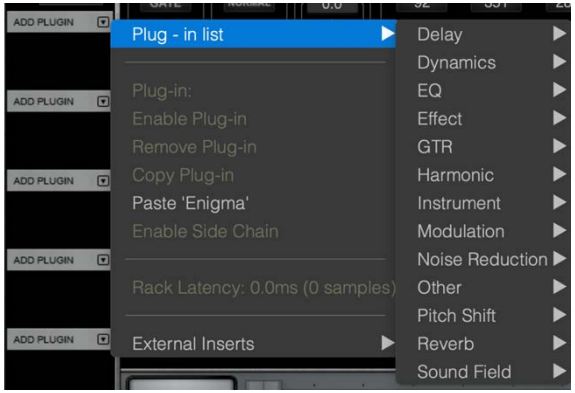
Filters: (in the Input panel on the left): Two-band high-pass/low-pass filter, with 18-dB-per-octave rolloff. They are commonly used to remove unwanted low- and high-frequency noise before processing. They are also handy for controlling mic pops.

Dynamics: Combines five dynamic tools, including Gate, Leveler, DeEsser, Compressor, and Limiter. All sections can be turned on or off, so you can focus on precisely how you are influencing the sound.

EQ: A four-band EQ that incorporates band on/off, band frequency, gain, and Q. Curve types include high-shelf, low-shelf, parametric, lowpass, high-frequency and low-frequency resonant shelves, depending on the band. It is multi-touch compatible, so several bands can be controlled simultaneously.

Click on a plugin icon to return to single-plugin view.

Add More Processing



If you want more (or specialized) processing, you can add plugins to the channel.

To assign more plugins to a channel, click the down arrow on an empty plugin slot. This opens the plugin assignment menu. Plugins are organized by category.

Select a plugin from the menu.

The plugin will appear in the plugin rack. Its interface is shown in the plugin pane. You can assign up to eight plugins per channel.

Shown here is the 6 Floating-Band Dynamic EQ, which is commonly inserted on input channels.

Add more plugins in the same manner.

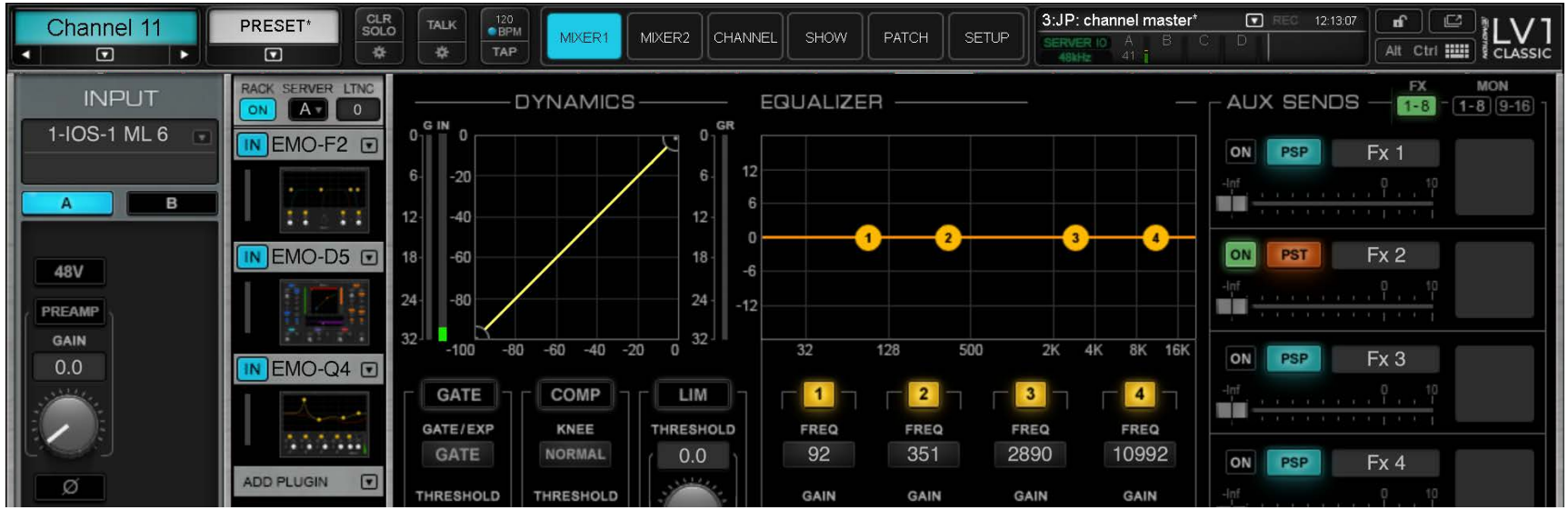
Drag a plugin up or down the rack to change its position in the channel's signal flow. Drag a plugin off the interface to remove it from the rack.

GEQ Graphic Equalizer, shown here, is often applied to any output channel for venue matching or tone shaping.

eMotion LV1 Classic includes more than 15 plugins regularly used in live sound. Additional plugins are available through subscription and with perpetual license bundles. Visit Waves.com.

Set and Adjust Aux Sends

Channels can be sent to an FX or Monitor auxiliary mix busses.



1. Select the Channel from which to send (in this example, channel 11, as shown in the Channel Selector box).
2. Go to the **Channel** window.
3. The **Aux Sends** panel is on the right side of the window. Use this section to determine which aux channels you are sending the channel to (FX or MON busses).
4. Select an **aux channel**, set the level, and select the **source** (PSP, PST, INP, PRE). Repeat this for all auxes.

Use Sends on Faders

You can adjust aux sends levels using the large faders. This is more comfortable and more accurate than using the small faders on the sends.

1. Go to Mixer Window and choose one of the aux layer **Modes** (EFX 1–8, MON 1–8, MON 9–16).
2. Select a channel (in this case, Channel 1).
3. Choose which aux you want to send to. In the Sub Views section on the left, click the name of the aux channel whose sends you wish to adjust (in this example, Mon 4). The interface changes color to indicate that channel faders have flipped function.
4. The name of the selected aux channel will appear above the master fader (circled here), and cue will be selected for that aux buss.
5. Use the large faders to adjust send levels for all channels in the current layer.

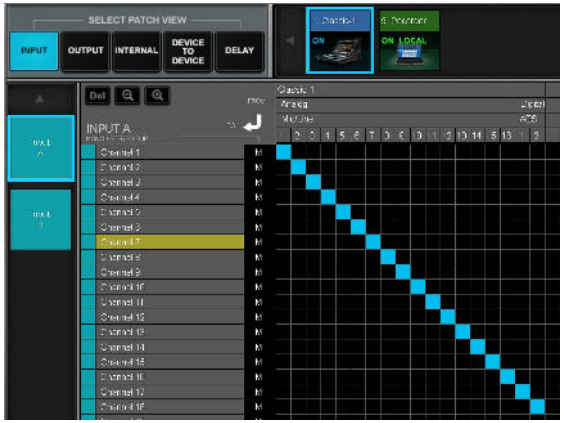
6. The Master fader now maps the aux output, and the buss name appears above the fader. Use the Master fader to adjust the aux buss output.

   You can also select the Flip mode on the fader bank to use sends on faders.

Change Input and Output Patching

Change Input Patch

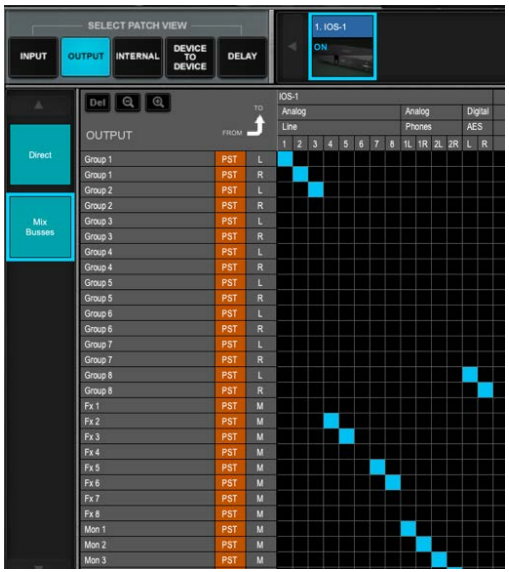
By default, the 16 Waves Signature preamps are patched to mixer input channels 1–16, in any combination of microphone and line inputs.



To change the input patching, follow these steps:

1) Open the **Patch** window.
2) Click the **Input** tab. The I/O device appears that the top.
   a) The Classic I/O is shown at the top and its I/O channels are immediately below.
   b) Mixer input channels are shown on the left. By default, I/O channels 1–16 are patched to mixer inputs 1–16.
3) To make the patch, click on the intersection of the desired I/O and channel input. Draw a straight line to patch several connections.

Change Output Patch



The default eMotion LV1 Classic output patching is as follows:

Output 1–8:	Matrix 1–8	Output 11–12:	L/R
Output 9–10:	Cue	Phones 1–2:	Cue

To change the output patching, follow these steps:

1) Open the Patch window.
2) Click the Output tab.
3) Select a mixer output:
   a. Direct channel output: Patch to direct outs as defined in the Channel window.
   b. Mix Busses: patch GRP, FX, MON, Matrix, LR, Center, Mono, Cue.
4) To make the patch, click on the intersection of the desired output channel and I/O channel.

Add a Stagebox

Adding a stagebox increases the number of I/O channels and enhances onstage flexibility. To add a stagebox to your eMotion LV1 Classic, follow the steps below:

Connect the stagebox to the etherCON connector. When using multiple stageboxes, you can use an external switch that is connected to a Classic Ethernet connector. Use Cat 5e or Cat 6 Ethernet cable. Power up the stagebox.

1) Go to Setup window -> System Inventory.
2) Click Auto-Config Start.

Select **Add**. At the end of the Auto-Config process, the stagebox will appear in the inventory. Patching to and from the stagebox will begin at LV1 channel 17. If the Auto-Config utility cannot locate the stagebox, it's likely that the Ethernet cable is not well seated. Reseat the cable on both ends and try again.

To add a device manually, click the down arrow in an empty rack slot and choose the desired device from the list. The I/O will then appear in the rack. Refer to the eMotion LV1 User Guide for details.

Manage Sessions and Scenes (snapshots)

Sessions Page

Scenes Page

A **Session** is a complete description of the current mixer condition. Depending on your settings, the latest session will load automatically when you launch eMotion LV1 Classic. A **Scene** is a snapshot of a specific event, often used for a song or section of a song. There are typically many scenes in a session. Manage sessions and scenes, load sessions and recall scenes here or from the Top Bar.

To create or modify a session:

1. Go to the **Show** window and select the **Sessions** tab.
2. Click **New**. The entire mixer condition will be saved as a new file.
3. To update an existing session to the current mixer condition, overwriting a selected session, click **Save**.
4. Press **Load** to open a scene from the Scenes list.

Sessions can also be saved and loaded from the Preset menu in the Top Bar.

To create or modify a scene:

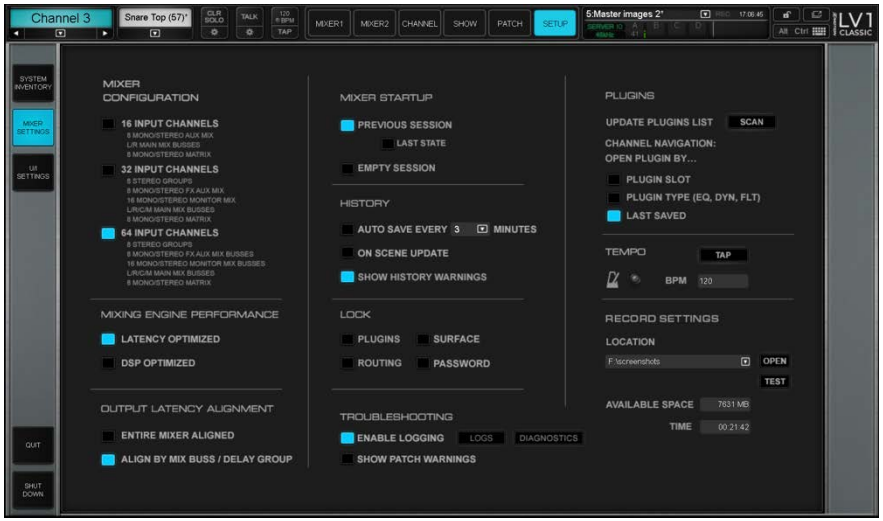
1. Go to the **Show** window and select the **Scenes** tab.
2. **New** creates a new scene from scratch, **Store** modifies an existing scene, **Recall** triggers the selected scene.
3. Use the **Scope** panel to define which mixer attributes will change when a scene is recalled. **Recall Safe** prevents selected channels, busses, and processes from changing during a scene change.

Sessions can also be saved and recalled from the Scenes menu in the Top Bar.

Customize the Mixer

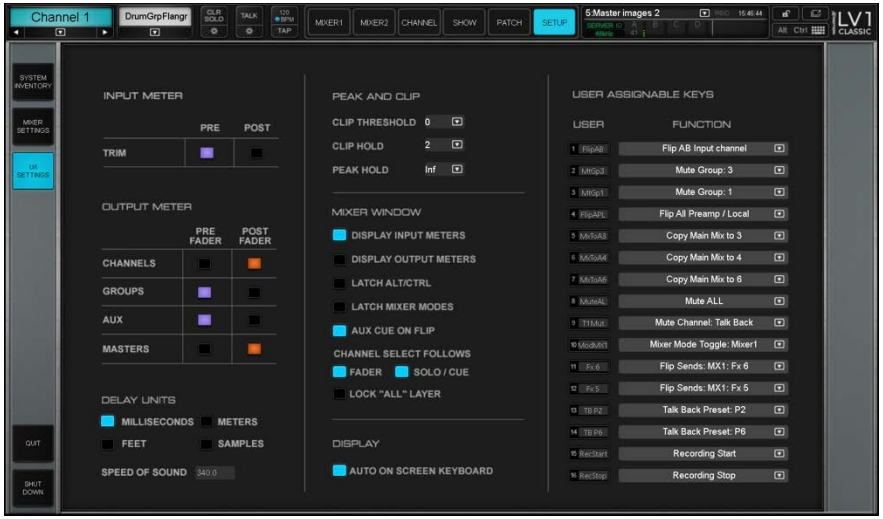
You can customize the behavior of the mixer and personalize its interface.

MIXER SETTINGS



- Set mixer configuration
- Select latency behavior
- Establish startup condition and set lock rules
- Set plugin behavior and tempo
- Troubleshooting and more

U/I SETTINGS



- Customize your meters (Pre/Post on input trim and output meters; peak/clip)
- Set delay units and current speed of sound for comfortable calculations
- Configure Mixer window and display behavior
- Assign the 16 user-assignable key functions
- And more

Learn More

If there's something you don't understand, don't worry—you're covered. Each document listed has a link to the PDF user guide on the Waves website. Scan the QR code to download the file on your mobile device.

eMotion LV1 User Guide

This comprehensive reference guide covers everything about the eMotion LV1 mixer. If you need to know something, it's here.

Support Articles

Support articles include updates, a knowledge base, release notes, and more.

eMotion LV1 Classic Landing Page

Read what people are saying about LV1, learn about training, and contact the LV1 team.

Key Specifications and Features

Mixer Engine	**Sample Rate**	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
	Bit Depth	Double Precision 32-bit floating point
	Latency	As low as 0.8 ms
	Processing	Intel-based DSP engine (Waves Extreme Server equivalent)
Mixing Facility	**Input Channels**	64 mono/stereo channels + talkback
	Buses	44 mono/stereo mix buses
	Masters	Stereo/Center/Mono/Cue
	Groups	8 mono/stereo
	Aux	24 mono/stereo (8 EFX / 16 Mon)
	Matrix	8 mono/stereo
I/O and Peripheral Connections	**Analog Inputs**	16 Waves Signature Preamps with mic/line inputs
	Analog Outputs	12 Line outputs
	AES Input	1 Stereo with SRC
	AES Outputs	2 Stereo
	H/P Output	1 Stereo H/P output with TRS and minijack connectors
	HDMI	HDMI for external second monitor
	USB Ports	2x top / 6x rear
	SoundGrid Ports	1 Gbit Ethernet switch with 2x etherCON / 2x RJ45 ports
	Lamp	XLR4 12v
	Network/Wi-Fi	Secondary network port for internet/Wi-Fi router
	Redundant Power Supply	Dual power inlets
User Interface	**Display**	21.5” multi-touch screen

		Up to 1000 Nit controllable brightness, for low-light and outdoor situations
	Faders	16+1 100-mm motorized faders
	Multi-Function Controls	16+1 precision encoders, mini-displays (for parameter control and channel metering), Select, Mute and Solo keys. 16 Layers and Utility Keys + Tempo Pad.
	Customization	16+2 user-assignable keys for personalization of control functions
Processing	**Inserts**	8-slot processing rack hosts 8 plugins per input channel + all mix channels
		Complete channel processing presets, compatible with Waves SuperRack presets
	Plugins Included with the Console	Live Vocal Pitch Correction: Waves Tune Real-Time
		EQ: Waves eMo Q4 4-band eqaulizer
		EQ: Waves GEQ 30-band graphic equalizer
		Dynamics: Waves eMo D5 Dynamics
		Dynamics: Renaissance Compressor
		Dynamic EQ: Waves F6 Dynamic EQ
		Filtering: Waves eMo F2 HP/LP Filters
		Feedback Elimination: Waves X-FDBK
		Mic Bleed Elimination: Waves PSE
		Low End Control: Renaissance Bass
		Effects: H-Delay Hybrid Delay
		Effects: Doubler
		Effects: Renaissance Reverb
		Effects: TrueVerb
		Effects and Amp Simulation: Waves GTR3
		Analog Simulation: Magma Tubes Channel Strip

		Tools: eMo Generator signal generator
		Tools: External Insert for outboard gear connection
	Optional Plugins (purchased separately)	Add over 150 live-compatible plugins from the vast Waves catalog
Immersive In-Ear Mixing	**Waves eMo IEM plugin (purchased separately)**	eMo IEM plugin integrates seamlessly with eMotion LV1 Classic: software-only solution for immersive in-ear mixing
Dugan Auto-Mixing	**Dugan Speech plugin (purchased separately)**	Dugan Speech plugin integrates with eMotion LV1 Classic for auto-mixing multiple mics
Scenes		1000 scenes available
		Recall-safe filters
		Scene Recall scope filters
		External control via MIDI
		External control via Waves mRecall mobile application
		Global tempo control per scene
Input Channel Functions		A/B input options for quick patch changes
		Digitally controlled preamps
		Local V-gain with real-time gain tracking for preamp sharing
		Input delay line
Mix Channels and Output Functions		Automatic delay compensation on internal mix buses
		Multiple outputs available per channel, each with digital trim per output
		Full mixer alignment or delay groups alignment for maximum control over output timing
		Delay option per output connection
Additional Mixing Functions		Touch-friendly interface with 2 mixer layout windows, each providing 8 layers and up to 16 channel strips
		Create your own custom layers for super-quick personalized workflow

		Custom colors for channels
		Copy & paste channel names, processing and routing
		Auto on-screen keyboard for touch operation
		Sends-on-faders mode per Mixer window for each of the 24 aux buses, with auto-cue on aux and optional mix bus fader control
		DCA Spill: Populate layers with DCA-linked channels
		Channel Main view provides consolidated quick control over the channel's parameters both in the Mixer window and in a dedicated Channel window.
		Patch matrix window for devices and internal routing
		16 link control groups, with DCA fader per group
		8 mute groups, with an additional Mute All output option
		Tap tempo available on main toolbar
		Comprehensive meter and clip settings
		Show Lock option for locking plugin instantiations, external routing, and complete surface lock
		Solo-in-place option, with automatic solo-safe sources and destinations
Offline Session Editing		eMotion LV1 Offline Editor (free license) for preparing LV1 sessions offline pre-show
Remote Control	**Waves MyFOH app**	Remote control app for eMotion LV1 (tablet)
	Waves MyMon app	Personal monitor mixing app for LV1 (mobile/tablet): Up to 16 users
	Waves mRecall	Remote control app for recalling scenes (mobile/tablet)
	Waves MixTwin app	Full control of mixer and plugins (tablet)
Recording & Playback		16 mono / 8 stereo channel recording to external USB drive
		Stereo playback from external USB drive

		Up to 128 channels of recording/playback by connecting an external computer
Stage Box Expansions	**Waves IONIC 16**	16 Waves Signature Preamps / 12 Line Outputs
	Waves IONIC 24	24 Waves Signature Preamps / 18 Line Outputs
Expansions	**I/O**	Add up to 14 hardware and software SoundGrid I/Os
		Use any compatible PC or Mac as a playback/recording device with SoundGrid ASIO/Core Driver
		MADI-to-SoundGrid conversion devices are available for coaxial and optical MADI expansion. For information, visit https://www.waves.com/hardware.
		Dante-to-Soundgrid conversion devices are available for 64-channel Dante expansion. For information, visit https://www.waves.com/hardware.
		Variety of SoundGrid-compatible devices and third-party expansion cards add analog or digital I/Os
		Share I/Os between multiple eMotion LV1 Classic consoles, with separate gain control for each mixer
	SoundGrid Servers	Add up to 3 extra Waves SoundGrid servers for practically unlimited plugin processing power
		Add up to 4 backup (redundant) servers, as standbys for the active servers
	Faders	Add up to 32+2 more faders with Waves FIT fader banks
Technical Specifications	**Microphone / Line Inputs**	Input Gain adjustable from -3 dB to +60 dB in 1dB steps, default +20 dB. Signal presence and clip indicator per channel
		Frequency response: +18 dBu input +/-0.1 dB, 20 Hz to 20 kHz +/-1.0 dB, 10 Hz to 40 kHz
		Dynamic range: >110 dB (20 kHz BW, 0 dB gain) EIN -130 dBu (gain 60 dB, 0 ohms source, A-weighted) THD+N -100 dB (997 Hz, +18 dBu source, 0 dB Gain, 20 kHz BW)

		Input impedance: XLR: 2k ohms / 7k ohms, selectable per input TRS: 14.6k ohms
		Input Sensitivity: XLR: -33 dBu to +27 dBu, adjustable in 1 dB steps TRS: -27 dBu to +33 dBu, adjustable in 1 dB steps
		CMRR: 50 dB (20 Hz to 1 kHz, 0 dB gain) Crosstalk: > 90 dB (20 Hz to 20 kHz, +27 dBu input, 0 dB gain)
		48V phantom power switchable per input
		Harmonic Enhancer, switchable per input
	Line Output	Maximum output level: +18 dBu or + 24 dBu , switchable per output
		Frequency Response: +/- 0.1 dB, 20 Hz to 20 kHz @ 48 kHz SR +0.1 / -1.0 dB, 10 Hz to 40 kHz @ 96 kHz SR
		THD+N: -100 dB @ +24 dBu, -105 dB @ +18 dBu (997 Hz, 20 kHz BW) Crosstalk < 90 dB (20 Hz to 20 kHz) Residual output noise: -87 dBu (A-Weighted)
		Output impedance: 150 ohms
	Phones Output	Adjustable output gain
		Frequency Response: +/-0.1 dB, 20 Hz to 20 kHz @ 48 kHz SR +0.1/-1.0 dB, 10 Hz to 40 kHz @ 96 kHz SR
		THD+N: -80 dB (3V @ 30 ohms load, 997 Hz, 20 kHz BW)
		Output impedance: 20 ohms
	AES3	SR support: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz Input with auto SR conversion (SRC)
		Input / Output impedance: 110 ohms

	Operating Temperature		0–35°C / 32–95°F
	Power		2x 100 V–240 V auto-switching PSUs with input filter and switch
Dimensions	**Console (net)**	**W**	22” / 560 mm
		H	15.8” / 402 mm
		D	22.1” / 561 mm
	Cardboard Packaging	**W**	28.2” / 715 mm
		H	22.8” / 580 mm
		D	29.1” / 740 mm
Weight	**Console**		38 lbs. / 17.3 kg
	Shipping Weight		Cardboard package (including accessories): 14.3 lbs. / 6.5 kg Total package including the console: 53.9 lbs. / 24.5 kg