PreSonus®

StudioLive™ AI Mixing Systems

CASCADABLE

BETTER SOUND

EASIER TO USE

DOUBLE DSP

1-CLICK MULTITRACK RECORDING

WIRED & WIRELESS CONTROL

ROOM ACOUSTIC ANALYSIS

FEEDBACK CONTROL

BEST iPAD APP

BEST iPHONE APP

FULL DAW

STUDIOLIVE™
Active
INTEGRATION
TRADE MARK

SUMMER-FALL 2014

Cascading: Actively integrate any two AI mixers to create one larger console
with full recording, remote control, 8 FX processors and up to 8 subgroups!

32.4.2AI + 32.4.2AI

72 channels
(64 ch. + 4 stereo Aux Ins)
14 Aux buses · 8 local FX buses
4 or 8 Subgroups
(depending on Subgroup merge state)
80 x 66 Recording Interface

24.4.2AI + 24.4.2AI

56 channels
(48 ch. + 4 stereo Aux Ins)
10 Aux buses · 8 local FX buses
4 or 8 Subgroups
(depending on Subgroup merge state)
64 x 50 Recording Interface

16.4.2AI + 16.4.2AI

40 channels
(32 ch. + 4 stereo Aux Ins)
6 Aux buses · 8 local FX buses
4 or 8 Subgroups
(depending on Subgroup merge state)
48 x 34 Recording Interface

24.4.2AI + 16.4.2AI

48 channels
(40 ch. + 4 stereo Aux Ins)
6 global Aux sends
+ 4 extra local Aux sends
(24.4.2AI only)
8 local FX buses
4 or 8 Subgroups
(depending on Subgroup merge state)
56 x 42 Recording Interface

32.4.2AI + 16.4.2AI

56 channels
(48 ch. + 4 stereo Aux Ins)
6 global Aux sends
+ 8 extra local Aux sends
(32.4.2AI only)
8 local FX buses
4 or 8 Subgroups
(depending on Subgroup merge state)
64 x 50 Recording Interface

32.4.2AI + 24.4.2AI

64 channels
(56 ch. + 4 stereo Aux Ins)
10 global Aux sends
+ 4 extra local Aux sends
(32.4.2AI only)
8 local FX buses
4 or 8 Subgroups
(depending on Subgroup merge state)
72 x 58 Recording Interface

Cascading is not merely linking.

Don't confuse Active Integration *Cascading* with the "linking" claims made by our competitors.

Only StudioLive AI-series mixers can be combined via a FireWire 800 cable to create a larger console with complete recording and remote control.

STUDIOLIVE **Active** INTEGRATION TRADE MARK

Designate one mixer as "Master" and one as "Slave".

Each mixer's effects buses remain local, doubling the number of processors. Chose to merge subgroups or leave them unmerged to use a group masters.

Now your mixing system can grow along with your needs and budget!

The AI integrated software suite is up to the task.

Capture 2 welcomes 80-ch. recording and 66-ch. Virtual Soundchecks. VSL-AI and SL Remote- AI are ready and waiting for 72 channels. QMix-AI is all Q-ed up.

— and you wondered why we put two FireWire 800 ports on our AI mixers. Bwah ha ha ha! Our fiendish plot is now revealed!

The last upgrade you'll ever put on a thumb drive.

After the upgrade that brings you cascading, you'll be able to update future StudioLive AI firmware directly over a network connections

(wired or wireless). Simply connect your mixer to a network with Internet availability. Your *my.presonus* account will do the rest.

The Fat Channel: powerful, no-compromise signal processing at your fingertips.

Every channel and every bus of all three new StudioLive AI mixers have instant access to our even-heftier, improved Fat Channel with

▶ Variable High Pass Filter
▶ 4-band parametric EQ
▶ Full-featured Compressor
▶ Sophisticated Gate with Key Listen and Key Filter (with sidechain)
▶ Limiter with variable threshold

All useable at the same time. We didn't bury them in a menu somewhere or limit you to using them only on some channels like our competition does.

But it gets even better.

▶ You get two complete Fat Channel settings per channel and bus (see below) — double the processing power and creative options!

▶ You can make all the same adjustments wirelessly on an iPad (SL Remote-AI)

▶ …or on a laptop (Virtual Studio Live-AI)

All Clip LEDs are visible all the time.

We don't hide critical indicators inside invisible "banks". Everything you need to monitor a show (including ALL channel levels) is in sight at all times.

XMAX preamplifier

Our renowned design with high-voltage rails, crossover-free Class A design and an un-rivaled -129 dB E.I.N.

The most Analog Inputs and Outputs of any mixer in its class for extremely flexible connectivity in any application:

▶ Class A XMAX™ preamps, now with *individual* +48V phantom power

32	32.4.2AI
24	24.4.2AI
16	16.4.2AI

▶ Balanced TRS line inputs

36	32.4.2AI
28	24.4.2AI
20	16.4.2AI

▶ 2 Stereo Balanced Aux Return Inputs

▶ Analog Inserts

32	32.4.2AI
24	24.4.2AI
16	16.4.2AI

▶ Dedicated XMAX™ mic preamp for Talkback

▶ Direct Outputs

32	32.4.2AI
24	24.4.2AI
16	16.4.2AI

▶ Stereo Tape I/O
▶ S/PDIF output*

*Yes, that's digital. But it fit here.

StudioLive™ Active INTEGRATION

Actually, you get DOUBLE Fat Channels per mixer channel and bus.

We've made it easy to compare two signal processing settings on the same channel (or choose between graphic equalizers). Just push the A/B button. It's also perfect for quickly calling up a completely different sound for an instrument during a performance. You can store and recall both settings per channel on the mixer or in VSL-AI.

A/B Alt EQ & DYN

31-band graphic equalizers all over the place!

16	32.4.2AI
12	24.4.2AI
8	16.4.2AI

You asked for them. We delivered on the new AI Series. Insert them on Mains or any Aux bus. A/B between two settings. They're perfect for use with VSL-AI's Smaart® Spectra™ Tools. Run 'em from the mixer, a laptop (VSL-AI) or wirelessly (SL Remote-AI).

Channel 12 is always Channel 12.

…instead of suddenly turning into Channel 28 because you hit the Gang Switch button. Everything is 1:1 on a StudioLive AI mixer.

12
Select
Solo
Mute

Easy configuration with dedicated mix buses.

All three AI mixer models have 4 subgroups with balanced outputs

(and their own faders), as well as four separate FX buses. And of course you get dedicated analog aux buses with balanced outputs.

24	32.4.2AI
20	24.4.2AI
16	16.4.2AI

Aux Outputs

FOUR internal FX buses with dedicated 32-bit digital effects processors.

FX | Page 4: FXC
FX Type: T1 MONO DELAY
Time (ms) 810
Time X 1.00
FeedBack 0.25

FX | Page 3: FXB
FX Type: T3 BRIGHT ROOM
Decay (s) 0.80
Pre Dly (ms) 1.00
Erly Ref(dB) -22.0

Another benefit of the fact that AI mixers have a powerful computer CPU inside. You get two Reverb effect buses, and two Delay effects buses. We've provided 50 useful presets that sound superb. Or tweak parameters, make, and recall your own recipes.

Blazing DSP Performance unleashes more processing power and flexibility:

StudioLive AI-Series Mixers are developed on a new DSP platform that gets its power from a multi-core CPU and loads of fast RAM. The benefits include:

A computer, not a "DSP chip"

▸ 2 two distinct Fat Channel settings for every channel and bus

▸ 4 internal FX Buses (twice as many as original StudioLive mixers)

▸ Gate Key Input for every channel
▸ Peak Hold metering option
▸ 31-band graphic equalizer on every analog Aux mix and the Main mix
▸ 16 Auxiliary recording input streams plus streams for all channel inputs. Take 1-click recording with Capture 2.1 to a whole new level.

Robust Metering

You get *all* of these metering modes with bright LEDs, not on a small fuzzy screen:

▸ Input level
▸ Mains Output
▸ Clip LEDs
▸ Gain Reduction
▸ Aux Output Levels

| LVL | GR | SUB1 | SUB2 | SUB3 | SUB4 | Main |

No laptop needed with direct WiFi; or Ethernet LAN communication

QMix AI   QMix AI   QMix AI   QMix AI

StudioLive Remote-AI

USB

AI-series mixers' powerful suite of control and recording software.

For you CAT5/6 types, StudioLive AI mixers make connecting to a LAN network easy:

StudioLive AI-Series Mixers ship with both a USB WiFi LAN adapter and an onboard Ethernet connection. This lets you connect to a wireless router and wirelessly control your mixer from the

▸ If a hardwired Ethernet connection to a LAN network is available, your StudioLive AI mixer automatically connects to it, no IP addresses or DNS server names to remember or track down.

▸ Want to go wireless? From the network setup page, browse through the name of every available wireless network and simply chose the one you want to connect to…OR…

▸ Name your wireless network "StudioLive" with a password "studiolive" and your mixer will automatically connect to it, no configuration required.

Nobody else makes it even remotely this easy. Pun intended.

Continuously bi-directional FireWire s800 interface for easy recording and virtual soundchecks:

Buy a StudioLive AI, you're also buying a complete recording interface so you can record everything you mix.

▸ FireWire SEND streams

48	32.4.2AI
40	24.4.2AI
32	16.4.2AI

FIRE WIRE 800

▸ Dedicated channel sends for quick recording setup

32	32.4.2AI
24	24.4.2AI
16	16.4.2AI

FIRE WIRE 800

▸ 16 auxiliary recording streams:

▸ FireWire channel RETURNS with full DSP processing plus a stereo output for program music or click track

34	32.4.2AI
26	24.4.2AI
18	16.4.2AI

FIRE WIRE 800

record any bus plus Tape Input, Stereo Aux input channels, or Talkback

▸ Play back pre-recorded multi-track songs from Capture or Studio One during live performance or tracking

Capture 2.1 one-click multitrack recording software for Mac and PC comes free with AI-Series mixers.

▸ Sound check the band before they arrive
▸ Use your favorite plug-in as an insert

Enhanced workflow features

▸ Solo Clear
▸ Aux Mutes
▸ Quick Parameter Null
▸ Browsible Fat Channel preset library categories
▸ Latch, Radio, and Control Room Solo modes
▸ 6 Mute Groups and 6 Quick Scenes (32.4.2AI buttons, 16.4.2AI & 24.4.2AI available via Virtual StudioLive-AI)

Aux 10
Solo   Output
Mute   Select
Control
Mix|Pan

Mute Groups
(hold to store)
All On   1   2   3
All Off   4   5   6

Mix Scenes
(hold to recall)
Store   1   2   3
Undo   4   5   6

Option card slot fights obsolecence.

No matter what the future holds, StudioLive AI mixers are ready.

▸ FireWire 800/Ethernet *(included)*
▸ Thunderbolt®
▸ Dante™
▸ AVB

S800 S800   100 Base-T Control Network   SPDIF Out
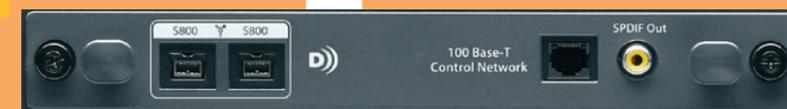
AI-Series mixers ship with dual s800 FireWire ports, Ethernet and S/PDIF. Other I/O cards are optional.

Complete Store and Recall

▸ Store/Recall complete mix Scenes with fader soft takeover for instant access without losing your fader mix
▸ Store/load custom Fat Channel presets or use one of 50 Factory presets and copy settings to and from any channel or bus
▸ Store and load custom GEQ presets
▸ Store and load custom FX presets or use one of the 50 Factory presets

Improve your sound with Smaart® tools

Rational Acoustics' Smaart measurement and analysis technnology gives you the power to make your PA system sound better, visualize and quash feedback, set delays for rear speakers and quickly confirm output connections.

Smaart

Previously, these tools have only been available to the sound professional. Now, buffered with easy-to-use wizards, they're ready to go to work for you as a part of the

The most complete iPad app: SL Remote-AI

Don't settle for an iPad application with limited functions. StudioLive Remote-AI gives you full control over all key mixer functions including Fat Channel adjustments and effects parameters from anywhere in a venue.

Put the Wheel of Me on your iPhone

We were the first with an iPhone app for personal monitor mixes. And first to approach it from the standpoint of what an on-stage musician really needs. Packed with powerful features, QMix-AI is pure simplicity to use. Just select the mixer channels you want to use on the "Me" page. Then

Your laptop is a mixer and librarian with VSL-AI

We were the first with laptop control for mixers. New **VSL-AI** puts us even farther ahead. Visit our website for the full story. Suffice it to say that you get full mixer control, Smaart® Room Analysis and Spectrograph as well as the ability

Capture it all in multitrack with just one click

Only AI-Series mixers come with software specially-designed for live recording. No compatibility issues. No DAW track assignment woes. **Capture™ 2.1** has added Active Integration functions (see below), up to 64 track capability, automated Virtual Soundcheck mode, advanced marker placement and recall, channel name sharing with

Finetune, enhance and produce with a full-feature DAW

Studio One has the world's fastest-growing user base for a reason. Okay, several reasons...including sound quality, ease of use, speed of workflow and ingenious features. So naturally, we pack a full copy

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The StudioLive AI cre ative solutions suite.

Why just buy a mixer when you can own a complete   Active Integration hardware/software system?

StudioLive AI-series creative solutions suite. Plug in a PRM1 Measurement Microphone and use the Smaart **Room Analysis Wizard** on laptop or iPad* to "shoot the room". You can instantly see how to adjust the Studio-Live AI's 4-band parametric EQs for better sound quality. Accurately set rear speaker delay with the **System Delay wizard**. Confirm output connections using the **Output Check** wizard.

Then "ring out" your monitors and main PA using Smaart's ingenious **Spectrograph** display which appears directly under Fat Channel EQs and every GEQ in VSL-AI.

Offending frequencies appear white. Just tweak the closest slider to kill the feedback. Only StudioLive AI-series mixers let you work this Smaart!

*Smaart Room System Check Wizards require a FireWire 800 connection between the AI Mixer and laptop running VSL-AI.

Overview displays levels, mutes, panning, EQ curves, and Fat Channel processing for multiple channels at once.

Aux view shows the levels, panning, GEQ, and Fat Channel processing for the Aux buses as well as the internal FX buses. **GEQ** view lets you adjust the graphic EQs for the main bus.

Portrait view shows every parameter for a single channel just by flipping the iPad after you've selected a channel.

New in StudioLive Remote-AI:

▶ Direct connect to AI-series Mixer without a computer or VSL-AI

▶ Set permissions between FOH (full) control and limited Aux Mix control from the StudioLive AI mixer system menu

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you're ready for the **Wheel of Me**, a virtual thumbwheel that adjusts the volume of your "Me" channels in relation to the rest of the monitor mix. Rotate your iPhone to Landscape view for control of the aux-mix send levels and pan position for each channel and aux. Want more kick drum? Dial it in.

New in QMix-AI:

▶ Direct connect to AI-series mixers without a computer or VSL-AI

▶ Full wireless control over focused AI mixer Aux Mixing parameters

▶ Set permissions between all Aux Mixes or an individual Aux mix control from the AI mixer system menu

▶ Restrict novice users to Wheel of Me

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to store, edit and share Scenes and Fat Channel presets.

New in Virtual StudioLive-AI

▶ Wireless connection to AI mixers

▶ Customizable for any screen size from 1280 x 768 up

▶ New DSP, Aux, FX, and Fader panels collapse and expand

▶ New Aux Mix panel emulates Aux Mix mode on AI Mixer Fat Channel

▶ AI Scene, FX, Fat Channel, and GEQ preset libraries auto-sync to VSL-AI

▶ Fader Locate shows where the AI mixer faders are relative to VSL-AI faders

▶ Now part of the Fat Channel EQ display: Smaart RTA and Spectrograph (remove feedback with Aux Mix Fat Channel EQ and reserve your GEQs for aesthetic adjustments for performers)

VSL-AI, SL Remote-AI and QMix-AI, Big Meter mode → and an amazing roster of safety features like auto-save in the event of a power failure. But it gets even better:

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of Studio One Artist 2.6 with AI-Series mixers. Unlimited track count, automation, virtual instruments, loads of plug-ins, and gigs of 3rd-party resources are just the start. Export to SoundCloud or your free Nimbit Facebook store from inside Studio One. And naturally you can open Capture 2.1 files...but it gets even better:

Active Integration in action: AI mixers, Capture 2.1 and Studio One 2.6.

Now AI-Series mixer Scenes can be stored inside Capture 2.1 files and reproduced when you open the file in Studio One 2.6. Every Studio One track will have the new Fat Channel plug-in — with identical settings to those you set on your StudioLive AI mixer during

the concert or worship service. Plus your faders levels, mutes and FX mixes! This is a huge time-saver when you need to do a quick mix-down, and a great starting point when you sit down to do the final mix. It's another example of how we're actively integrating our applications.

## Capture fans and distribute your music with Nimbit®

Fans want part of the live experience, you want to get more fans, and of course it's nice to make money too. Do it all with Nimbit. With Nimbit FanCheck.In, fans can use their mobile phones to get rewarded with free downloads or offers to buy StudioLive recordings from the night,

all while getting added to your list; Parishioners can check in to get a sermon recording; and parents can get their child's school performances. And all Nimbit users can upload recordings almost immediately to stores for their Facebook page

nimbit by PreSonus®

or website, share audio on Facebook or Twitter, collect donations, and so much more.
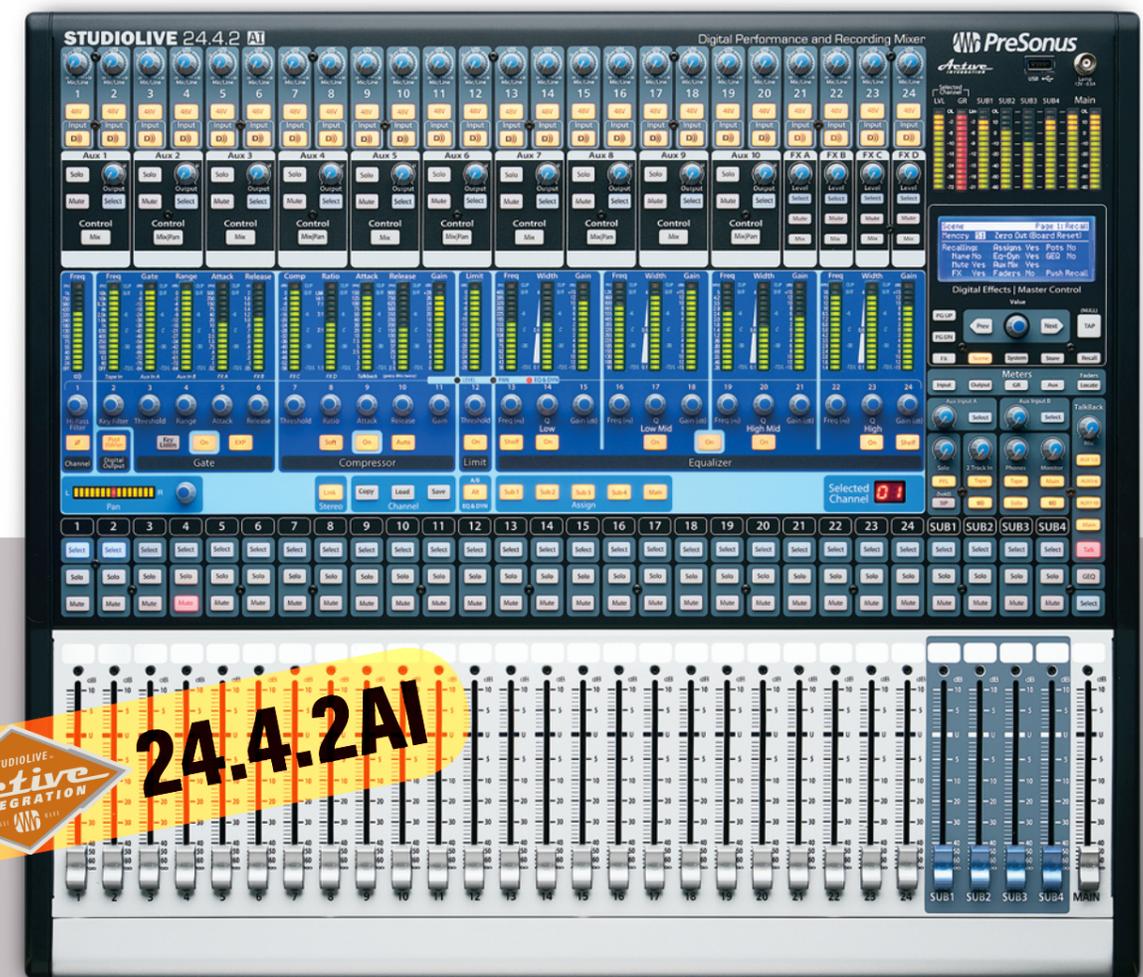
Built on the features and functionality of the award-winning StudioLive 16.4.2 and 24.4.2 digital consoles, the AI-mixers retain the same powerful, surface driven user interface while adding amazing processing power, unique software network integration, and enhanced workflow features.

Available in 32-, 24-, and 16-channel frame sizes, each AI-Series Mixer is equipped with a next generation

DSP platform that enables PreSonus' Active Integration technology.

Active Integration creates a complete, networked, tightly integrated hardware/software ecosystem in which every touch point in the system communicates to enhance the user experience and solve practical problems in ways not previously possible.

Each AI-Series Mixer features:

● **One-to-one control over every parameter**

● No layers or banks means your main mix is always at your fingertips
● Every channel's clip indicator is always visible
● **24-bit, up to 48 kHz sampling rate**
● **High-Definition Burr Brown® A/D-D/A converters (118 dB dynamic range)**
● **32-bit floating point digital mixing and effects processing**

● **Studio One-derived 64-bit coefficients for summing engine, EQ and dynamics**
● **The most analog inputs and outputs of any mixer in its class for more flexible connectivity:**
  ‣ 32/24/16 Class A XMAX™ Preamps with individual phantom power
  ‣ 36/28/20 balanced TRS line inputs
  ‣ 32/24/16 Analog Inserts
  ‣ 32/24/16 Direct Outputs

‣ Stereo Tape I/O
‣ 2 Stereo Balanced Aux Return Inputs
‣ Talkback communication system with dedicated XMAX™ mic preamp
● **Active Integration™ software suite includes:**
  ‣ Capture 2.1: Multitrack software with true Virtual Soundcheck and remote scene store/load

‣ Studio One Artist 2.6: Full DAW application with Native StudioLive Fat Channel plug-in and StudioLive AI Scene compatibility
‣ VSL-AI: Editor/Librarian with wireless remote control and Smaart™ System Check Wizards.
‣ SL Remote-AI: Direct wireless total mixer control software for Apple iPad
‣ QMix™-AI: Direct wireless dedicated aux mix control software for Apple iPhone/iPod touch

Features (left column list)

- **24/20/16 dedicated mix buses for easy configuration:**
  - 4 subgroups with balanced outputs
  - 14/10/6 analog auxiliary buses with balanced outputs
  - Stereo main mix with mono sum
  - 4 internal FX buses with dedicated onboard 32-bit digital effects processors (two reverbs, two delays)
- **Analog Inserts on every channel**
- **Analog Direct Outputs on every channel**
- **Analog Stereo Tape I/O**
- **2 Stereo Balanced Aux Return Inputs**
- **Fat Channel with:**
  - Variable High Pass Filter
  - 4-band parametric EQ
  - Full featured compressor
  - Sophisticated gate with Key Listen and Key Filter (with sidechain)
  - Limiter with variable threshold
  - A/B two complete Fat Channel settings—like having two different Fat Channel settings at once on every channel and bus
- **PLUS 16/12/8 31-band graphic EQs on each Aux and the Main bus with A/B**
- **Alt EQ & Dynamics button lets you A/B two different Fat Channel settings**
- **USB Device port supports USB wireless LAN adapter and thumb-drives for firmware updates**
- **37/29/21 100mm Faders**
- **99-Scene Store and Recall**
- **Quick "zero-out" for each parameter**
- **Talkback communication system**
- **S/PDIF out**
- **Optional iPad® Stand**
- **Option Cards:**
  - S800 / Ethernet (included)
  - Thunderbolt®
  - Dante™
  - AVB

- **Fully integrated, continuously bi-directional FireWire s800 recording interface for easy recording and virtual soundchecks:**
  - 48/40/32 FireWire send streams
    - 32/24/16 dedicated channel sends for quick recording setup
    - 16 auxiliary recording streams: record any bus plus Tape Input, Stereo Auxiliary Input channels, or Talkback
  - 34/26/18 FireWire returns
    - 32/24/16 hardcoded channel returns with full DSP processing plus a stereo output for program music or click track
    - Playback pre-recorded tracks during live performance or tracking
    - Sound check the band before they arrive
    - Use your favorite plug-in as an insert
  - 24-bit, 44.1 and 48 kHz
  - Compatible with Core Audio and ASIO (Mac®/Windows®)

Specifications

Microphone Preamp

Input Type	XLR Female, balanced
Frequency Response to Direct Output (at unity gain)	20-40 kHz, ±0.5 dBu
Frequency Response to Main Output (at unity gain)	20-20 kHz, ±0.5 dBu
Input Impedance	1 kΩ
THD to Direct Output (1 kHz at unity gain)	0.007%, +4 dBu, 20-20 kHz, unity gain, unwtd
THD to Main Output (1 kHz at unity gain)	0.005%, +4 dBu, 20-20 kHz, unity gain, unwtd
EIN to Direct Output	125 dB unwtd, 130 dB A-wtd
S/N Ratio to Direct Output (Ref = +4 dB, 20 kHz BW, unity gain, A-wtd)	105 dB
S/N Ratio to Main Output (Ref = +4 dB, 20 kHz BW, unity gain, A-wtd)	94 dB
Common Mode Rejection Ratio (1 kHz at unity gain)	65 dB
Gain Control Range (±1 dB)	-15 dB to +65 dB
Maximum Input Level (unity gain)	+22 dBu
Phantom Power (±2 VDC)	48 VDC, switchable per channel

Line Inputs

Type	¼" TRS Female, balanced mono
Frequency Response to Direct Outputs (at unity gain)	10-40 kHz, ±0.5 dBu
Frequency Response to Main Outputs (at unity gain)	20-20 kHz, ±0.5 dBu
Input Impedance	10 kΩ
THD to Direct Output (1 kHz at unity gain)	<0.007%, +4 dBu, 20-20 kHz, unity gain, unwtd
THD to Main Output (1 kHz at unity gain)	<0.005%, +4 dBu, 20-20 kHz, unity gain, unwtd
S/N Ratio to Direct Output (Ref = +4 dBu, 20 kHz BW, unity gain, A-wtd)	105 dB
S/N Ratio to Main Output (Ref = +4 dBu, 20 kHz BW, unity gain, A-wtd)	94 dB
Gain Control Range (±1 dB)	-20 dB to +20 dB
Maximum Input level (unity gain)	+22 dBu

Tape Inputs

Type	RCA Female, unbalanced (stereo pair)
Maximum Input Level	+22 dBu

Auxiliary Inputs

Type	¼" TRS Female, balanced (2 stereo pairs)
Maximum Input Level	+22 dBu

Main Outputs

Type	XLR Male, balanced (stereo pair); ¼" TRS Female, balanced (stereo pair); XLR Male, balanced (mono)
Rated Output Level	+24 dBu
Output Impedance	100Ω

Aux Outputs

Type	¼" TRS Female, balanced (mono)
Rated Output Level	+18 dBu
Output Impedance	100Ω

Subgroup Outputs

Type	¼" TRS Female, balanced (mono)
Rated Output Level	+18 dBu
Output Impedance	100Ω

Tape Outputs

Type	RCA Female, unbalanced (stereo pair)
Rated Output Level	+18 dBu
Output Impedance	100Ω

Control Room Outputs

Type	¼" TRS Female, balanced (stereo pair)
Rated Output Level	18 dBu
Output Impedance	100Ω

Headphone Output

Type	¼" TRS active stereo
Maximum Output	150 mW/ch. @ 60Ω load
Frequency Response	10 Hz – 70 kHz

System Crosstalk

Input to Output (Ref = +4 dBu 20-20 kHz, unwtd)	-90 dB
Adjacent Channels (Ref = +4 dBu 20-20 kHz, unwtd)	-87 dB

Noise Gate / Expander

Threshold Range	-84 dB to 0 dB
Attack Time	0.02s to 500 ms / 0.5 ms
Release Time	0.05s to 2s
Expander Attenuation Range	2:1 (fixed)
Noise Gate Attenuation Range	-84 to 0 dB
Key Filter	2nd-order, resonant bypass; Q=0.7
Key Listen	Off, 40 Hz to 16 kHz

Compressor

Threshold Range	-56 dB to 0 dB
Ratio	1:1 to 14:1
Attack Time	0.2 ms to 150 ms
Release Time	40 ms to 1,000 ms
Auto Attack and Release	Attack = 10 ms, Release = 150 ms
Curve Types	hard and soft knee

Limiter

Threshold	-56 dB to 0 dB / -28 dBFS
Ratio	∞:1
Attack	20 ms
Hold	10 ms
Release	20 ms

Parametric EQ

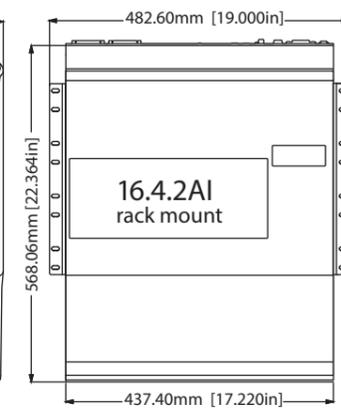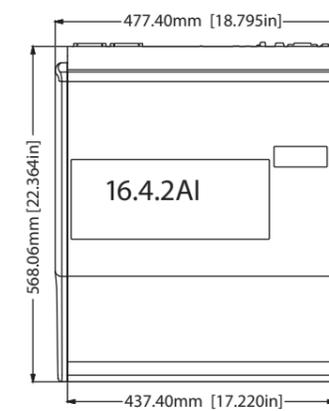|	
Type	2nd-order shelving filter
Low (Lowpass or Bandpass)	36 to 465 Hz, ±15 dB
Low Mid (Bandpass)	90 Hz to 1.2 kHz, ±15 dB
High Mid (Bandpass)	380 Hz to 5 kHz, ±15 dB
High (Highpass or Bandpass)	1.4 kHz to 18 kHz, ±15 dB
Q (selectable for each band)	Low Q= 0.55, Hi Q-2.0 (sweepable per band: 0.1 to 4. 16.4.2 requires VSL-AI and SL Remote-AI)

Graphic EQ

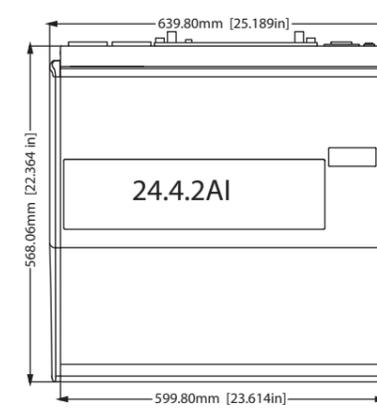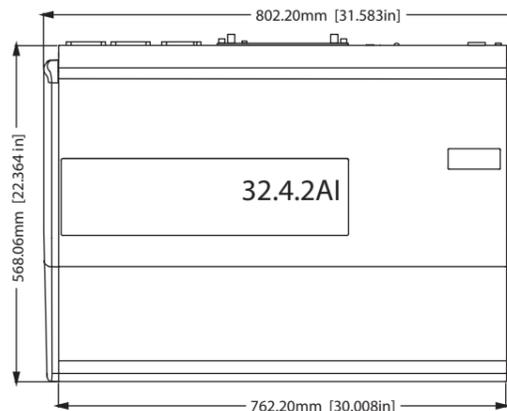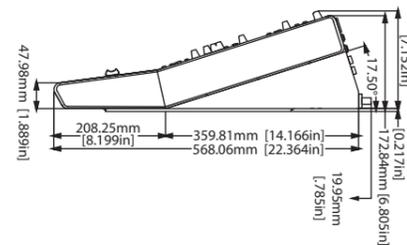|	
31-Band 1/3-Octave Controls	Center frequencies (Hz): 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1k, 1.3k, 1.6k, 2k, 2.5k, 3.2k, 4k, 5k, 6.4k, 8k, 10k, 13k, 16k, 20k. Each band has a constant Q.
Gain/Attenuation	±15 dB

Digital Audio

ADC Dynamic Range (A-wtd, 48 kHz)	118 dB
DAC Dynamic Range (A-wtd, 48 kHz)	118 dB
FireWire	S800, 800 Mb/s
S/PDIF Output	RCA Female
Internal Processing	32-bit, floating point
Sampling Rate	44.1, 48, 88.2, 96 kHz
A/D/A Bit Depth	24
Reference Level for 0 dBFS	-18 dBu

Clock

Type	JetPLL™
Jitter	<20 ps RMS (20 Hz - 20 kHz)
Jitter Attenuation	>60 dB (1 ns in, 1 ps out)

Power

Connector	IEC
Input-Voltage Range	90 to 240 VAC
Power Requirements (continuous)	200W

Operating Temperature

Recommended Ambient Operating Temperature	0° to 40° Celsius / 32° to 104° Fahrenheit

Dimensions

STUDIOLIVE 16.4.2 AI

47.98mm [1.889in]
181.67mm [7.152in]
17.50°
208.25mm [8.199in]
359.81mm [14.166in]
568.06mm [22.364in]
5.50mm [0.217in]
172.84mm [6.805in]
19.95mm [.785in]

32.4.2AI — 802.20mm [31.583in]; 568.06mm [22.364in]; 762.20mm [30.008in]

24.4.2AI — 639.80mm [25.189in]; 568.06mm [22.364in]; 599.80mm [23.614in]

16.4.2AI — 477.40mm [18.795in]; 568.06mm [22.364in]; 437.40mm [17.220in]

16.4.2AI rack mount — 482.60mm [19.000in]; 568.06mm [22.364in]; 437.40mm [17.220in]

No integrated Virtual Sound Check mode.

Many digital mixers claim to have a "virtual soundcheck" but it comes with all the same headaches and hassles as multi-track recording and playback. So before you can use your recordings to set up a mix, you have to configure your mixer inputs to play back audio and when you're done, you have to dive back into that system setup menu to reconfigure your mixer channels for analog inputs.

StudioLive AI mixers are the only affordable mixer line that provides a truly integrated Virtual Soundcheck mode.

Click the Virtual Soundcheck mode button in Capture. Select the Capture session you want to use. Capture automatically loads the audio, loads the stored StudioLive mix scene on your mixer, engages the digital returns on your mixer, and broadcasts the track names to your mixer, SL Remote-AI, VSL-AI, and QMix-AI. When you're done dialing in your mix, click the Virtual Soundcheck mode button again to remove your audio, turn on the analog inputs on your mixer, and arm all the tracks for recording tonight's gig in Capture.

No other mixer has a two-click Virtual Soundcheck.

Click tracks? Forget it!

Recording a performance or rehearsal, then being able to do a sound check and ring out the PA system *before* the band arrives is a powerful tool. StudioLive AI mixers provide a continuously bidirectional audio interface with your computer and playback routing per channel that's enabled from a button on the control surface. *No menu diving, no mixer reconfiguring.* Press the button and your audio plays back on that channel. Done.

StudioLive AI mixers provide a continuously bidirectional audio interface

— unless you want to tie up eight channels at a time and lose them for other purposes! Mixer X requires playback channels to be routed in *banks of eight*.

That means in you just need one or two track played back from your DAW, you're going to lose eight of your channels.
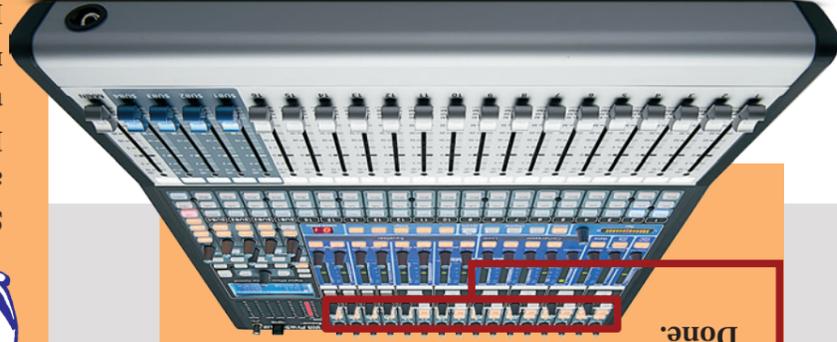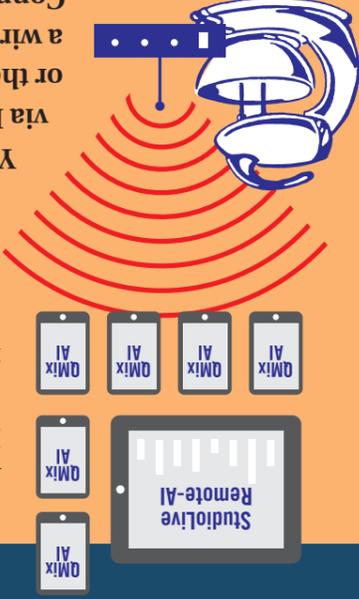

Not easy to connect to a network.

Off-hand, do you know the IP address of your router? Or Gateway subnet mask? Probably not. Finding out these arcane tidbits of info is just part of the multi-step process required for Mixer X to talk to a network.

Active Integration lets StudioLive AI mixers instantly detect and connect to the network of your choice. You can do this via Ethernet port or the USB port with a wireless "dongle". Connect your StudioLive AI mixer to your router with an Ethernet cable and you're connected. If you want connect wirelessly, connect the included USB wireless adapter to your mixer and scan for available networks. Bottom line: if you can connect your iPad or laptop to a wireless router, you already know how to connect your StudioLive AI mixer to a router.

StudioLive
Remote-AI

QMix
AI

Not expandable.

What do you get when you combine one Mixer X with a second Mixer X? Two mixers.

Combine one StudioLive AI mixer with a second StudioLive AI mixer and you create a single larger console.

Here's how: When you connect two StudioLive AI mixers with a FireWire 800 cable and cascade them, they respond like a single console. The channels on the slaved mixer are routed to the buses of the master mixer and every function is linked so your two mixers respond as a single integrated larger mixer.

This means if you cascade two StudioLive 32.4.2AI mixers, for example, you get a 64-channel console with 32 mix buses (14 aux buses, 8 FX buses, 8 subgroups, and a stereo main bus) with a whopping 80 x 66 recording interface.
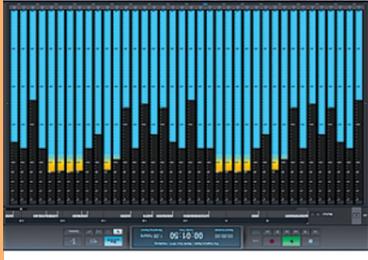
No easy way to record multi-track.

If you're not recording everything you mix — including rehearsals — you're missing out on a valuable (and potentially profitable) tool.

If you want to multitrack with Mixer X, you'll have to either configure that free "lite" software that came with it or purchase a full-featured DAW application and configure it as well.

Want to playback those recordings through your mixer? Well, now you have dive into a system set-up menu and configure your mixer to playback audio from your computer.

Capture 2 software was designed specifically for StudioLive mixers so it knows which mixer is connected and auto-configures accordingly so you can record with a single mouse click. It "knows" the track/channel names and stores all Fat Channel settings for use with Studio One Artist. It even "starts recording" before you hit REC, just in case you were a little slow on that mouse click. Ready to playback your recording? Just click "play" in Capture, the digital returns on your StudioLive AI mixer turn on automatically and you're listening to your recording. It's that simple.
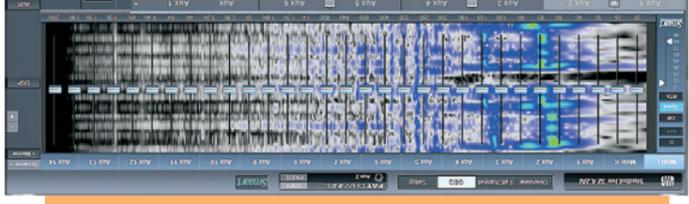
No visual tools for PA optimization or feedback elimination.

Years of sound engineering experience and "golden ears" shouldn't be necessary to get the most out of your PA system in any room environment.

Other compact mixers leave you on your own or make you buy extra expensive software.

We built Rational Acoustics' acclaimed Smaart® measurement and analysis software right into VSL-AI.

Smaart®

The easy-to-use Smart Room Analysis Wizard guides you step-by-step through an automated process to "shoot the room" and equalize your PA to the venue's acoustic space in minutes. Two other Wizards calculate and set alignment delays and help you to quickly verify outputs and routing.

Plus Smart Spectrogram on all VSL-AI Fat Channel and graphic EQs visually pinpoints feedback frequencies so you can quash them quickly.

No interactive software suite.

A mixer without robust software that solves everyday problems is like a computer without an operating system.

Sure Mixer X comes with some software, but it wasn't designed to work together. So you need to configure both the mixer and the software just to get them to talk to one another. And when you're through, none of the software programs talk to each other. Or do stuff like Room Analysis and visual feedback elimination (see Compromise 7).

Active Integration technology turns a StudioLive AI mixer into a powerful hardware/software system:

VSL-AI for laptop control, set-up, feedback elimination and more, SL Remote-AI to mix remotely from anywhere in the venue, QMix-AI for personal monitor adjustment, Capture 2 for one-click multi-track recording and true Virtual Soundchecks, Studio One Artist DAW for production, and Nimbit for distribution.

Moreover, they talk to each other! Change the name of a mixer channel in VSL-AI and it automatically updates in SL Remote-AI, QMix-AI, Capture, and your mixer. Open a Capture track in Studio One Artist and you'll discover all of your mixer Fat Channel settings reproduced as individual plug-ins.

No analog inserts or direct outs.

No contest. Mixer X simply doesn't have any.

So if you have Mixer X on stage to run your monitor mix and you need to get the same signals back up to front-of-house for your main mix engineer to do his job, you're going to have to purchase an expensive splitter snake.

StudioLive AI has an analog insert and a direct out for every channel.

They come in very handy, not just for saving the cost of a splitter snake but for adding in outboard dynamics and effects processors to get just the right tone on a particular channel or two.

Pre-Insert Balanced Direct Outputs

Out - 9-16

Insert   Insert   Insert   Insert   Insert   Insert

1

You can only see half the channels at once.

Most digital mixers rely on "banking" to save cost on pricey moving faders. This means that you only have immediate access to a small portion of your channels. Let's say that Mixer X is set to the Channels 1-16 bank. The lead vocal on Channel 22 is clipping like mad. But you don't have any visual feedback because that channel is in a different bank. And it's a couple button pushes just to get to it, and by the time you've fixed that, the guitarist has started his solo on Channel 14 and you're frantically switching back to ride the fader.

With StudioLive AI, everything is right in front of you, just like on classic analog consoles. Clip LEDs on every channel. Big, visible meter displays. A fader for every channel. This is how live mixing should work.

2

Not enough Aux or Effects buses.

For years, digital mixers have used "flexible" mix buses. They give you a set number of mix buses and you can divide them up into aux buses or subgroups as you see fit.

On the surface, this sounds great, but can cause some real problems if you don't read the fine print. Let's say Mixer X has 16 mix buses and you need 14 aux mixes. That leaves you *two* mix buses that can either be effects buses *or* subgroups.

Need an extra reverb send for the horn section? You'll need to give up one of your aux mixes just to get it.

StudioLive AI mixers provide 16, 20, and 24 dedicated mix buses, so you always know exactly what you have to work with, no "*some terms and conditions may apply*". That means you always have 6, 10, or 14 aux buses (depending on model), 4 FX buses, 4 subgroups, and a stereo main bus.

3

Not enough graphic EQs or limiters.

Also in the fine print for most digital mixers is what processing you actually get...and where you actually get it. It's not a pleasant surprise.

Let's say Mixer X claims eight stereo graphic EQs. What they don't mention is that if you use all eight graphic EQs, **you don't get any other effects!** You're maxed out. If you want a graphic EQ on each of your 14 aux mixes and another on your Main, you *don't* get a reverb, delay, or any other effect for your instruments and vocals.

The same goes for limiters. Want to put a brick wall limiter on your vocalist's in-ears? You'll need to pick and chose what you're willing to give up to protect their hearing.

StudioLive AI mixers provide a 31-band graphic EQ and limiter for every aux bus, plus a stereo 31-band graphic EQ and limiter for the main bus. All the time. No compromises.
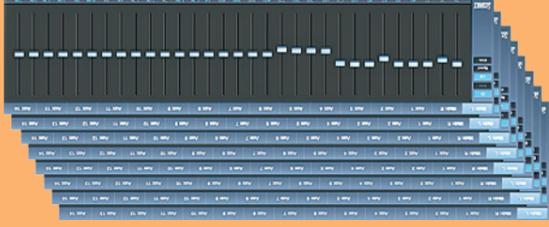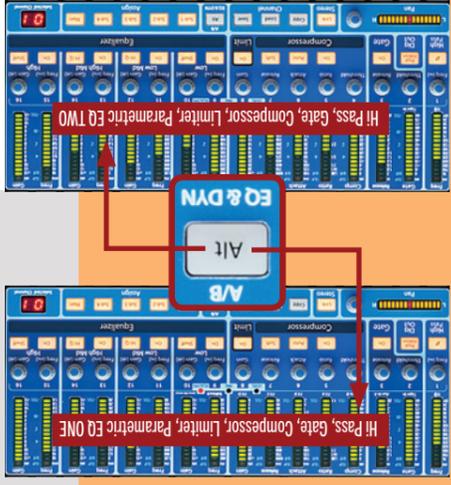
These are *in addition* to the 4-band fully parametric EQ, full-featured compressor, and noise gate/expander that you get for every bus (including the four effects buses) and the high pass filter you get for every aux bus plus the four effects buses. No other digital mixer in this price point even comes close.

4

No creative signal processing alternatives.

Experimenting with different EQ, compression and limiting settings is a critical part of getting your sound right. Mixer X (and all other compact digital mixers, for that matter) make it difficult to try two different settings on the same channel. Listen to one setting. Do a lot of adjustments. Listen to the alternative. Forget how the first setting sounded. Try to reproduce the first setting, etc. When experimentation is difficult, you don't do it as much and miss out on making your sound better.

Every StudioLive Fat Channel is actually *two* Fat Channels with an A/B button so you can make instant comparisons. You get two whole sets of EQs, limiters, compressors, high pass filter, etc. on each channel. For example create a Fat Channel setting that makes the kick drum punchy. Then create another setting that's even more radical with more low end boom. A-B back and forth to hear which one you like better. Save them both. This feature is also great for radically changing the channel signal processing for an individual song in the set.