

Warranty

Benson SoundLabs Limited Warranty

Benson SoundLabs warrants this product, under normal use, to be free of defects in materials and workmanship for a period of One (1) Year from date of purchase, with proof of purchase from an authorised Benson SoundLabs dealer.

Benson SoundLabs will either replace or repair the product, or refund the purchase price, at its discretion. In the event repair is required, shipment to and from Benson SoundLabs nominated address shall be the responsibility of the purchaser. A Return Authorisation number may be obtained from the website. The product should be shipped back in its original packaging.

The product must be registered to the original purchaser having completed the product warranty electronic registration at <http://www.bensonsoundlabs.com>.

In the event that Benson SoundLabs determines that the product requires repair due to misuse, it will assess a fair repair or replacement fee. The purchaser will have the option to pay this fee and have the product repaired and returned.

Benson SoundLabs will not be liable for consequential, special, indirect, or similar damages or claims including loss of profit or any other commercial damage.

This warranty shall be construed, interpreted, and governed by the laws of the state of California. If any provision of this warranty is found void, invalid or unenforceable, it will not affect the validity of the balance of the warranty, which shall remain valid and enforceable according to its terms. In the event any remedy hereunder is determined to have failed of its essential purpose, all limitations of liability and exclusion of damages set forth herein shall remain in full force and effect.



Lineage Super 8

TRION

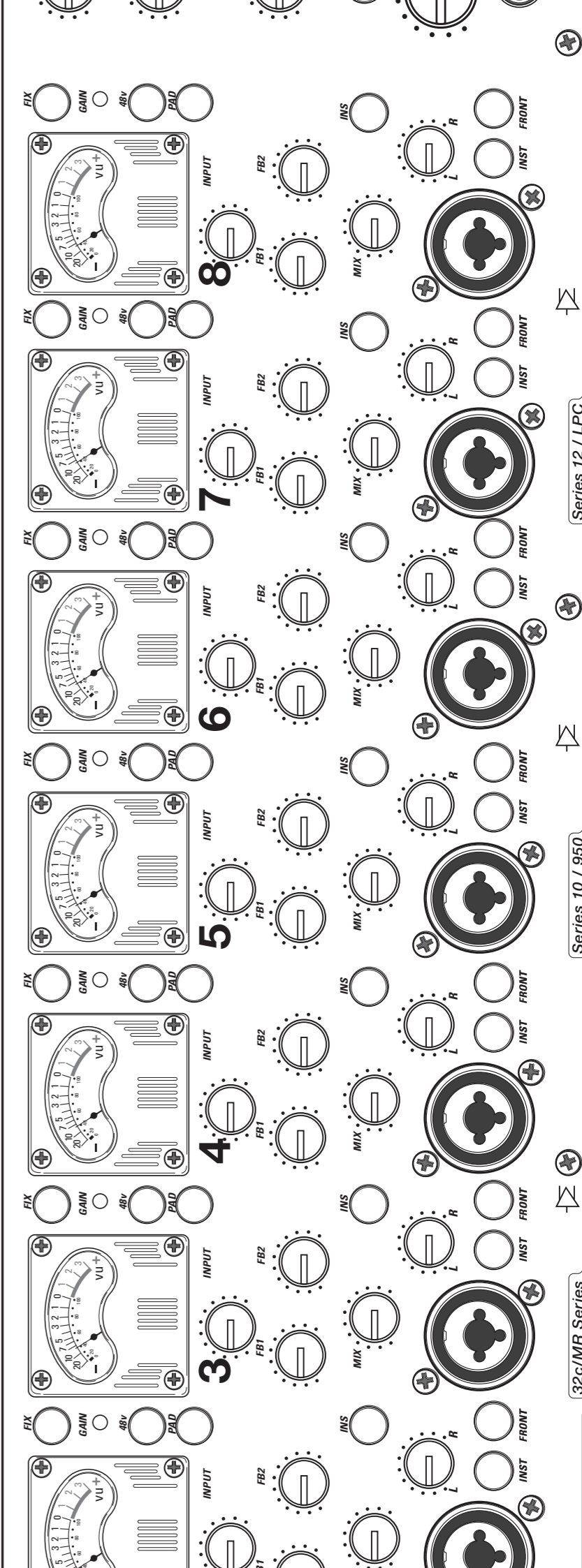
32c / MR Series

Series 10 / 950

Series 12 / LPC



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Lineage Super 8

The Lineage SUPER 8-8 channel microphone preamplifier/ SUMMING MIXER

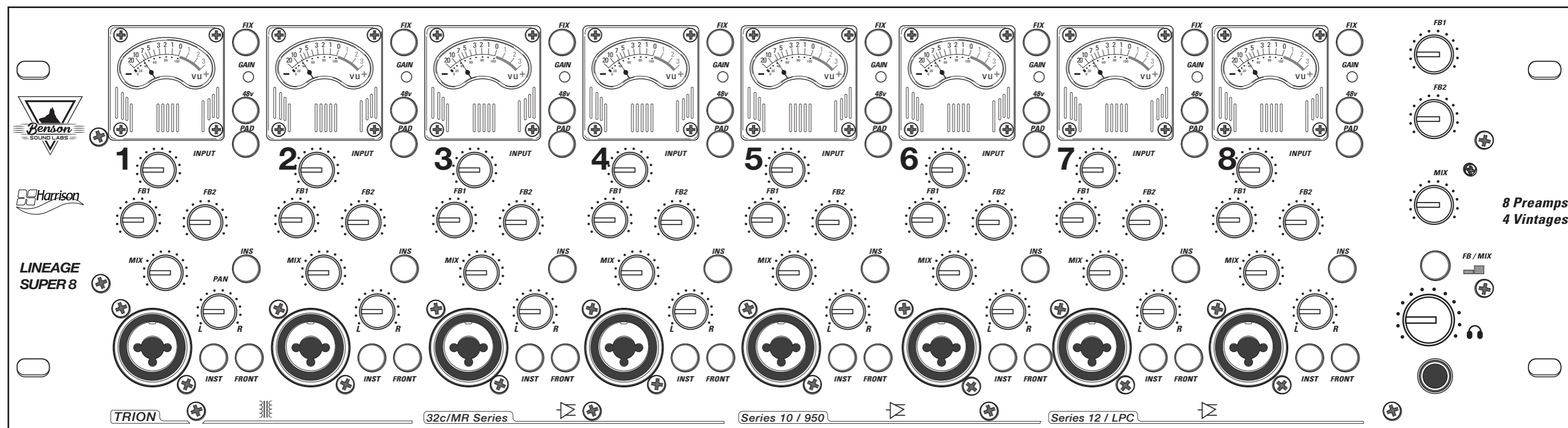
Provides 8 microphone preamps, each from a different era of Harrison consoles, along with 8 channels of TRUE ANALOG SUMMING. Each pair of preamps has their own unique character, providing the recording engineer with all the history of Harrison in one unit.

Features

- 8 Channels of Harrison Mic preamps with PAD and 48V
- 8 INST INPUT
- 8 PREAMP DIRECT OUTPUTS
- 8 x ANALOG VU METER
- 8 x channels INSERT SEND/ RETURN/ DAW INPUT
- 2 x MIX OUTPUT / SUMM OUT
- 2 x FB/ AUX OUTPUT
- 1 x HEADPHONE MIX OUTPUT with Variable control
- PAN L/R on EACH CHANNEL
- LINK L/R output for CASCADE and EXPANSION

An innovative addition is the "FIX" button on each preamps. The "FIX" button engages a preset gain trim (user-adjustable via a trim pot). The combination of the front-panel input switching and the "FIX" buttons allow you to switch the first two preamps between one use (such as two calibrated overhead mics in the studio) and another (such as a vocal chain setup) without having to reset the input gain in-between.

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The rear panel includes eight microphone preamp inputs and a DB25 connector carrying the eight line outputs. The unit is constructed using high-quality components and hand made in the USA.

The Harrison design staff, some of whom have been with Harrison since the mid-70s, researched the archives and re-created these designs using the accumulated knowledge of their analog design expertise. These circuits represent the "designers choice" among dozens of consoles developed through the years.

The details of each preamp were tweaked to capture (and sometimes accentuate) the character of the original mic preamps using modern components. In each case, the original intent was to provide the most transparent design possible with the available technology.

The differences will be subtle on some recordings, while the differences will be quite noticeable on others.



Lineage Super 8

The Lineage SUPER 8-8 channel microphone preamplifier/ SUMMING MIXER

PREAMPS

The front panel provides inputs for channels (with selector switches) and controls for each of the eight mic preamps:

- (2) 70-80's era mic preamps, with pad and 48V switches, instrument mode, and "FIX" gain preset
- (2) 80-90's era mic preamps with pad and 48V switches, instrument mode, and "FIX" gain preset
- (2) 90-00's era mic preamps with pad and 48V switches, instrument mode, and "FIX" gain preset
- (2) Trion mic preamps with pad, 48V switches, instrument mode, and "FIX" gain preset

When FIX is selected the mic pre gain is set by the recessed GAIN pot instead of the front panel knob. The GAIN pot can be set to a frequently used setting that can easily be recalled.

Channels 1 & 2 - TRION

The TRION mic pres represent the latest in Harrison's mic pre designs. These have transformer-balanced inputs and electrically balanced rear line outputs. Each mic pre has a selectable front panel input that can be used with either a mic or instrument (INST) signal. When INST is selected, the input transformer is bypassed and a FET input stage is inserted for use with a high impedance instrument signal. 48V phantom power and a -20 dB pad are selectable from the front panel. An alternate recessed gain pot is selectable by pressing the FIX button. When FIX is selected the mic pre gain is set by the recessed GAIN pot instead of the front panel knob. The GAIN pot can be set to a frequently used setting that can easily be recalled.

Channels 3 & 4 - 32c / MR Series

Channels 3 and 4 are reminiscent of Harrison's mic pre designs used in the 32c and MR series consoles of the 1970's and -80's. These feature a low noise, parallel discrete input stage with electrically balanced rear line outputs. 48V phantom power and a -20 dB pad are selectable from the front panel.

Channels 5 & 6 - Series 10 / 950

Channels 5 and 6 are reminiscent of Harrison's mic pre designs used in the Series 10 and PRO950 consoles of the 1980's and -90's. These feature a low noise, single discrete input stage with an op amp driven reference. The rear located outputs are electrically balanced. 48V phantom power and a -20 dB pad are selectable from the front panel.

Channels 7 & 8 - Series 12 / LPC

Channels 7 and 8 are reminiscent of Harrison's mic pre designs used in the Series 12 and Live Performance Console (LPC) of the 1990's and 2000's. These feature a low noise, single discrete electronic input stage and a dual driven output stage with FET compensated headroom. The rear located outputs are electrically balanced. 48V phantom power and a -20 dB pad are selectable from the front panel.

TRION

This preamp is based on a premium Lundahl transformer in an unconventional but inspired design that provides 70dB of clean gain. It also has the additional features of front panel inputs, instrument (hi-Z) selection, and an alternate "FIX" gain preset. With unmatched sound and configurability, this pair of preamps provides the backbone for any recording studio. They provide subtle character for lead vocals, clean gain for DI instruments, transformer saturation on close-miked drums, and recallability (using the FIX mode) for matched drum overheads. The TRION mic preamps are the culmination of decades of optimizations to accommodate sources with widely-ranging requirements. You can't throw anything at these preamps that they can't handle.

70s-80s

A parallel discrete input stage provides 60dB gain using a static bias scheme. This preamp has an EIN measurement at the edge of theoretical limits, and is perfect for quiet sources where noise performance is an absolute priority. Paradoxically, this same preamp provided the hard-hitting sounds of 70s rock and R&B that put Harrison on the map. A true classic.

80s-90s

This model is based on a single discrete input stage (63dB gain) using an active bias scheme. Providing slightly more gain and headroom than the 70s models, but with a similar character, this preamp is a "workhorse" design that has powered many incarnations of Harrison analog products over the years. This is an excellent low-noise, high-gain preamp that will transparently capture any source.

90s-00s

Incorporating a single discrete input stage (63dB gain) and using a passive bias scheme, these preamps also incorporate FET-compensated headroom extension. This unusual design powered some of Harrison's later digitally controlled analog consoles, and it is highly regarded for preserving the character of individual drums, acoustic guitar, and other percussive, harmonically-rich sources that need to "cut through" a mix.

This circuit also differs from the others by using a parallel electronically balanced output which we found was needed to preserve the original's character.

MIXER

The Lineage SUPER 8 is an 8 channel TRUE ANALOG SUMMING MIXER with BUSS assignment. 8 Channels of DAW output can feed the inputs which are routed to the MIX/ FB/ AUX outputs and returned to your DAW or other devices with true analog headroom.

Each Channel has Analog VU Meter, PAD, Fixed/ Variable GAIN, BUSS assignment, PAN, INSERT and MIC/ INST input, the master section includes variable HEADPHONE and MASTER BUSS control.

Combined with the 1632C, this completes a powerful all ANALOG 16 channel, 8 Microphone Preamp with Filter/ EQ, PAN control, Headphone and MIX BUSS output Harrison MIXER with VU metering.

The front panel includes eight MIC/INST inputs, and the rear panel includes eight microphone preamp inputs and a DB25 connector carrying the eight line outputs. The unit is constructed with a robust power supply and uses high quality components that are assembled and tested and hand built in the USA.



Lineage Super 8

Audio Specifications:

The following specifications apply to Benson Sound Labs Lineage SUPER 8 Mic Preamps and are subject to change without notice. Mic Preamps will be tested to meet only those specifications in effect at the time of final testing. These specifications represent an overall system and not the individual components of a system. They represent the cumulative effect of all components. Additionally, these specifications are stated over a wide range of operating conditions representative of actual use conditions rather than a restrictive set of conditions likely to be seen only when conducting systems tests. Therefore, these specifications represent the worst case in-use conditions rather than test conditions developed for competitive advantage. All level specification tolerances are +/- 1 dB.



TRION

Input Impedance without Pad	920 ohms
Input Impedance with Pad	1300 ohms
Minimum Gain without Pad	26 dB
Minimum Gain with Pad	6 dB
Maximum Gain without Pad	70 dB
Maximum Gain with Pad	50 dB
Maximum Input Level without Pad	-2 dBu
Maximum Input Level with Pad	+18 dBu
Maximum Output Level	+24 dBu
1kHz THD @ 50db gain	< 0.010
IMD @ 50db gain	< 0.05
EIN 150 ohm source impedance	> 127 dB
Freq. Response 20Hz-20kHz +/-	0.25 dB
Instrument Input Minimum Gain	13dB
Instrument Input Maximum Gain	57dB
Instrument Input Impedance	1 Mohm

32c / MR Series

Input Impedance without Pad	7000 ohms
Input Impedance with Pad	1360 ohms
Minimum Gain without Pad	12 dB
Minimum Gain with Pad	-8 dB
Maximum Gain without Pad	60 dB
Maximum Gain with Pad	40 dB
Maximum Input Level without Pad	+12 dBu
Maximum Input Level with Pad	+16 dBu
Maximum Output Level	+24 dBu
1kHz THD @ 50db gain	< 0.005
IMD @ 50db gain	< 0.025
EIN 150 ohm source impedance	> 127 dB
Freq. Response 20Hz-20kHz +/-	.25 dB
Instrument Input Minimum Gain	N/A
Instrument Input Maximum Gain	N/A
Instrument Input Impedance	N/A

Series 10 / 950

Input Impedance without Pad	1300 ohms
Input Impedance with Pad	1360 ohms
Minimum Gain without Pad	16 dB
Minimum Gain with Pad	-4 dB
Maximum Gain without Pad	63 dB
Maximum Gain with Pad	43 dB
Maximum Input Level without Pad	+8 dBu
Maximum Input Level with Pad	+28 dBu
Maximum Output Level	+24 dBu
1kHz THD @ 50db gain	< 0.005
IMD @ 50db gain	< 0.025
EIN 150 ohm source impedance	> 127 dB
Freq. Response 20Hz-20kHz +/-	.25 dB
Instrument Input Minimum Gain	N/A
Instrument Input Maximum Gain	N/A
Instrument Input Impedance	N/A

Series 12 / LPC

Input Impedance without Pad	1300 ohms
Input Impedance with Pad	1360 ohms
Minimum Gain without Pad	16 dB
Minimum Gain with Pad	-4 dB
Maximum Gain without Pad	61 dB
Maximum Gain with Pad	41 dB
Maximum Input Level without Pad	+8 dBu
Maximum Input Level with Pad	+28 dBu
Maximum Output Level	+24 dBu
1kHz THD @ 50db gain	< 0.005
IMD @ 50db gain	< 0.025
EIN 150 ohm source impedance	> 127 dB
Freq. Response 20Hz-20kHz +/-	.25 dB
Instrument Input Minimum Gain	N/A
Instrument Input Maximum Gain	N/A
Instrument Input Impedance	N/A

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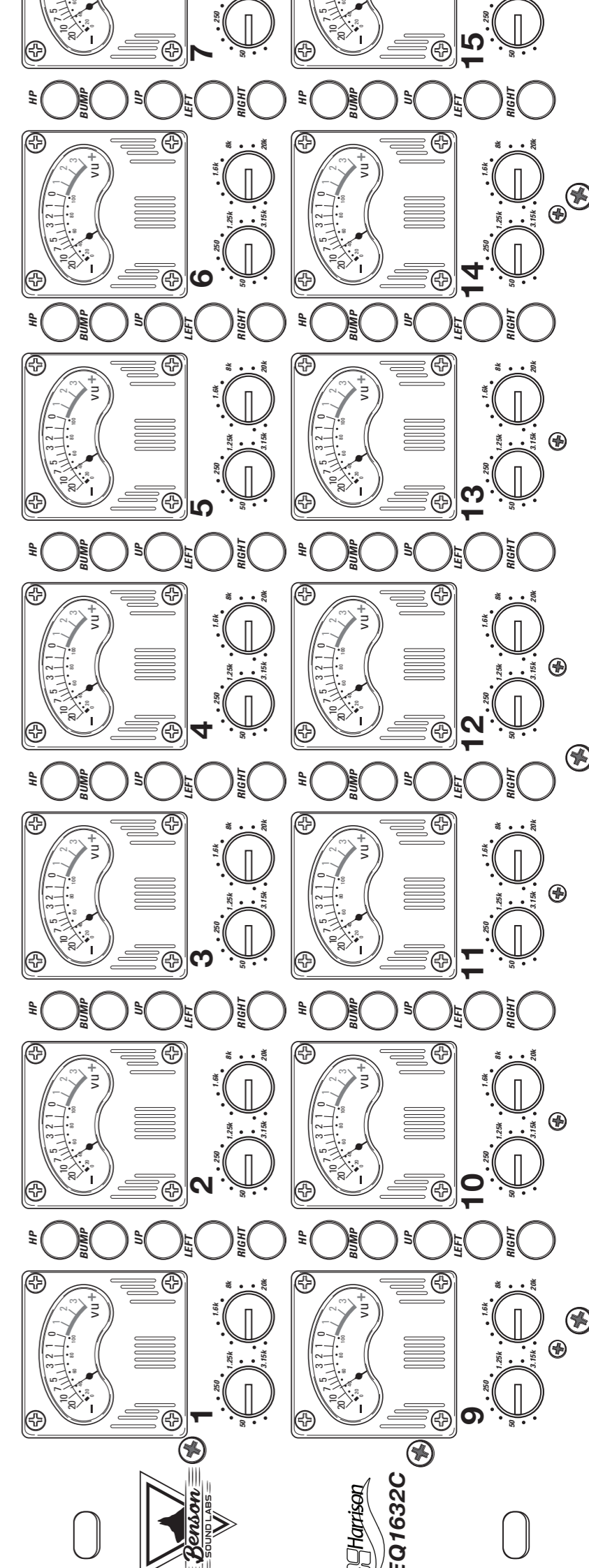
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1632 Filter- EQ



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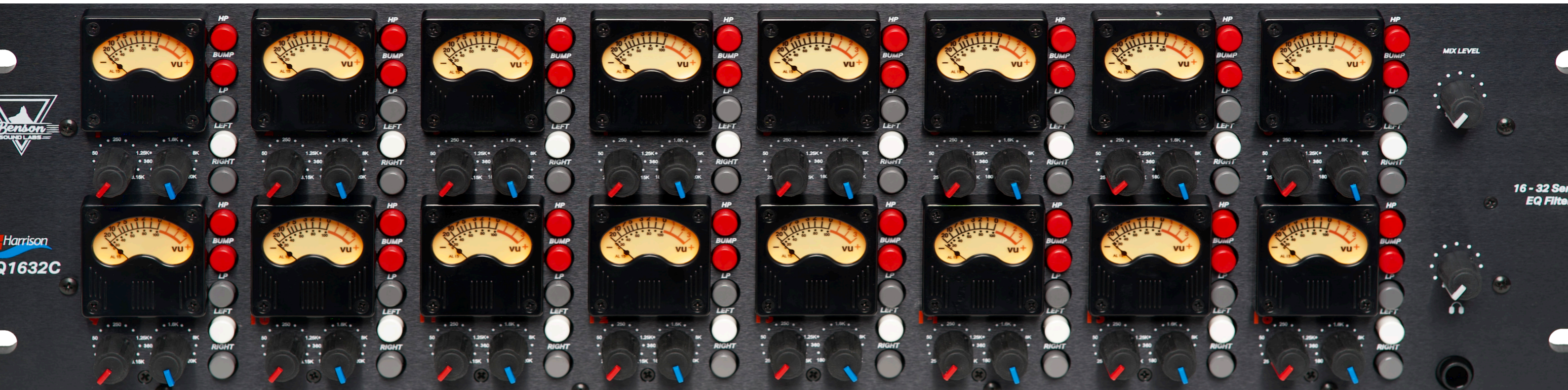
1632 Filter- EQ

The 1632 Filter/ EQ / SUMMING MIXER

Includes 16 channels of high-pass / low-pass filters from Harrison's world-renowned 32-series console - providing classic Harrison sound for recording and mixing. The first Harrison console shipped in 1975. Since that time, countless ground-breaking artists have been recorded and mixed on Harrison- designed consoles - AC/DC, Janet Jackson, Queen, ABBA - the list goes on! The greatest selling album of all time - Michael Jackson's "Thriller" - was recorded and mixed on a Harrison 32-series console using the very same filters featured on the 1632C.

Features

Each channel features in / out buttons (marked "HP" and "LP"), a "Bump" button, 2 sweepable filter knobs, VU input meter and Left/Right BUSS assign buttons. The main section includes MIX output and HEADPHONE output for variable controls. The rear includes 16 channels of DIRECT IO and LEFT/ RIGHT MIX outputs for SUMMING and BUSS feed. A stereo LINK on 1/4" allows cascading and expansion.



Overview

When the filters are engaged, the variable filter knobs adjust the desired frequency. The HPF knob (red) allows adjustment from 25Hz to 3.15KHz. The LPF knob (white) allows adjustment from 180Hz to 20KHz. When engaged, the unique "Bump" button creates a resonant "boost" just above the selected HPF frequency - re-creating the signature low-end of the Harrison 32-series consoles. This resonance accentuates audible low frequencies while rolling off unneeded sub-low energy. Combined with proper execution of the LPF, the "Bump" feature makes the 1632C the perfect piece to fatten kick drums, beef up bass lines, and add body to guitar tracks.

The 1632 is an all analog 16 Channel Summing MIXER providing Filter/ EQ on each channel. A total of 16 direct inputs are available from your DAW which can be bussed to the MIX Outputs to return the SUMM mix utilising that famous Harrison Sound with all the headroom of Analog.

The audio connections are provided on AES59 (Tascam DB-25) connectors. These connectors match the output of the Lineage Super 8 Mic Preamp/ Summing Mixer. When used in tandem, the 1632C Filter/ EQ Unit and the Lineage Super 8 Mic Preamp/ Summing Mixer provide a complete 8-channel inputted SUMMING solution with preamp, filters/ EQ, bussing, headphone monitoring and metering.

Specifications

- | | |
|-------------------------------|---------------------------|
| • Input Impedance | 10K ohms |
| • Output Impedance | < 50 ohms +24 dBu +24 dBu |
| • Maximum Input Level | +28dbu |
| • Maximum Output Level | +28 dBu |
| • THD 0.001% at | +26dbu |
| • Freq. Response (no filters) | 20Hz-20kHz +/- 0.25 dB |
| • Freq. Response (filters in) | 20Hz-20kHz +0, -3 dB |
| • HP / LP Filter Slope | 12 dB / Octave |

