

# GB4



4-BUS PROFESSIONAL MIXING CONSOLE



## HOW CAN A DUAL-MODE 4-BUS MIXING CONSOLE THIS AFFORDABLE SOUND THIS GOOD?



Every inch a professional Soundcraft console, the GB4 is packed with the features you need to create a memorable live sound mix. Combining totally re-engineered circuit topology with our ground-breaking GB30 mic preamp and EQ designs, the GB4 is an affordable live sound console that rivals the sonic performance of many high-end professional mixers. It's also built to last with a rigid steel chassis, high quality vertically mounted fibreglass PCB channel strips and individually nipped potentiometers ensuring reliability in both fixed installations and on the road.

And thanks to a conveniently angled rear connector panel, you can do all your patching without ever leaving the mix position.



### KEY FEATURES:

- 12, 16, 24, 32 and 40 channel frame sizes
- GB30 mic preamp and precision equalisation circuitry
- 15 busses
- 2 full feature stereo channels
- 2 stereo returns
- Direct outputs on every channel
- Talkback facility
- 100mm faders
- Switchable 48V phantom powering on every channel
- 8 Aux sends (4 of which are pre/post switchable)
- 18dB/octave high pass filter
- 4 sub groups
- 4 mute groups
- 7x4 output matrix
- 12-segment LED metering
- Record output with limiter

# MUCH MORE CONSOLE FOR YOUR MONEY



With dual-mode topology derived from Soundcraft's high-end MH Series consoles, the GB4 is the ultimate live mixing solution for medium-sized venues including clubs, theatres and houses of worship. With a single button press, any of the first four Aux master controls can be swapped with the respectively numbered Group fader, providing the flexibility to work at FOH, Monitors, or perform both duties simultaneously.

New GB30 circuit designs ensure world class sonic performance. Every input channel features a GB30 mic preamp which uses local linearisation techniques rather than global feedback, and delivers an extremely open frequency response and excellent phase linearity. And the GB30 EQ borrows the innovative topology developed for the MH4 console, providing GB4 users with the benefits of genuine high-end equalisation.

The innovation doesn't stop there. Soundcraft development engineers have taken a meticulous 'ground-up' approach to the circuit and mechanical design of the GB4 to create a robust and affordable 4-bus live sound console with noise performance and channel isolation figures bettering those of many more expensive consoles.

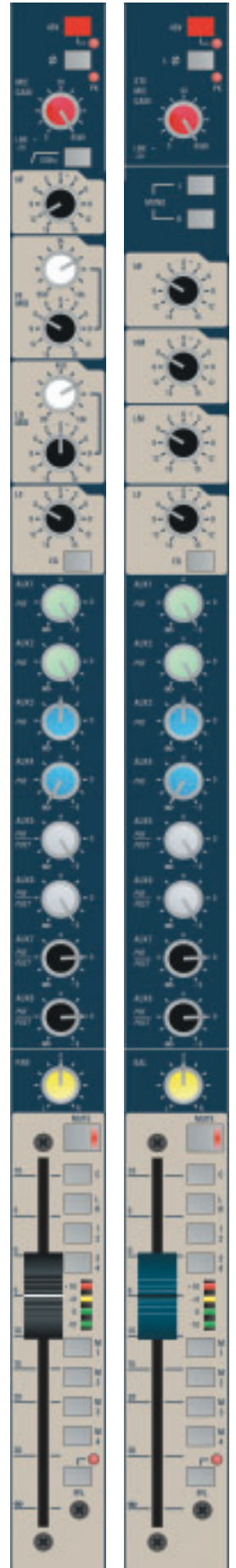
# GB4



The GB4 is packed with professional features including seven true busses – four Groups, the L-R mix and a C (mono) bus – with eight Aux sends bringing the total bus count to fifteen. GB4 has four mute groups, providing quick and easy muting of groups of channels, ideal for scene changes or where groups of instruments need to be silenced. And the GB4's 7x4 matrix is essential when different zones in a venue require specifically tailored mixes, enabling the

operator to create sub-mixes of the Group, L-R mix and C (mono) busses.

When it comes to recording a performance, the GB4 is similarly well equipped with pre-/post-fader switchable direct outputs on every channel and a high-quality limiter on dedicated record outputs fed from the L-R mix bus.



Mono Module

Stereo Module

## MONO INPUT MODULE

**Mic input:** A balanced XLR connector accepts balanced or unbalanced mic signals.

**Line input:** A balanced 1/4" jack accepts balanced or unbalanced line level sources, such as keyboards.

**+48 Phantom power:** individually switchable on every channel.

**Phase reverse:** individually switchable on every channel.

**Input stage:** precision, low noise mic preamps deliver continuously variable gain between 5dB and 60dB

**High pass filter:** Provides 18dB/Octave attenuation below 100Hz.

**Insert:** The insert point on every channel is pre-EQ, pre-fader.

**Direct output:** A pre-/post-fader switchable direct output is available on every mono channel.

**EQ section:** The 4-band equaliser section provides HF/LF shelving and swept Lo-Mid and Hi-Mid frequencies. The EQ section can be switched in as desired with the EQ button.

**Auxiliary sends:** 8 Auxiliary sends have flexible pre/post switching. Auxes 1-4 are pre-fader and, in normal operation, are routed to the rotary Aux masters 1-4. In SWAP mode, they are routed to Group faders 1-4 and Group meters 1-4, ideal for monitor mixing applications.

**Routing:** The signal on each fader can be routed to the L-R mix (via the Pan control), the C (mono) bus and Groups 1&2 and 3&4.

**Pan:** Enables odd/even Groups or L-R mix bus to be accessed individually.

**Solo/PFL:** Each channel can be soloed pre-fader, post-EQ to check levels.

**100mm fader:** Provides accurate, consistent control of audio levels.

**Metering:** A 4-segment LED display on each fader strip provides an instant reference for the signal level on that channel.

## STEREO INPUT MODULE

Two stereo inputs allow connection of stereo sources, or use as sophisticated effects returns.

**Connections:** Each channel is equipped with both balanced jack and XLR pairs. The left or right input can be selected, if required, as a single, mono source to be routed to both paths. Alternatively both the left and right signals can be mono-summed.

**EQ section:** The 4-band equaliser section provides HF/LF shelving and fixed-frequency Lo-Mid and Hi-Mid boost/attenuation.

## GROUP SECTION

**Group outputs:** A balanced XLR output is provided for each Group.

**Insert points:** Pre-fade insert points are provided on jack connectors.

**Group metering:** Four 12-segment peak reading bargraph meters display Group (or Aux 1-4 in SWAP mode) output levels.

**Matrix assignment:** Four rotary controls per Group allow individual assignment to Matrices 1-4.

**Matrix masters:** The level at each Matrix output (balanced jack) on the rear panel is controlled by a rotary control, with a button for AFL.

**Auxiliary masters:** The level at each Auxiliary output (balanced jack) on the rear panel is controlled by a rotary control with a button for AFL.

**Group/Aux SWAP:** Four push buttons swap the functions of Auxiliary 1-4 master rotary controls and Group master faders. NB: These 12-segment peak reading bargraph meters always display the signal selected to the Group faders, i.e. Groups 1-4 in normal operation, or Auxes 1-4 when used in SWAP mode.

**Routing:** The signal on each Group fader can be routed to either the L-R mix (via the Pan control) or to the C (mono) bus.

**100mm Group faders:** Provide 10dB of extra gain above the zero mark, whilst still ensuring smooth operation. Each Group is also equipped with AFL.

## MASTER SECTION

**Connections:** L-R mix and C (mono) bus outputs appear on balanced XLR with jack insert points. The L-R mix is also provided on two pairs of balanced jack outputs and one pair of RCA/phono outputs. A balanced XLR input allows a talkback mic to be connected and an RCA/phono pair allows connection of a 2-track device.

**Metering:** Three 12-segment Peak reading bargraph meters display L-R mix and C (mono) bus output levels.

**Matrix assignment:** Any of the four Group masters, Left, Right and C (mono) buses can be routed to any of the four matrix outputs via individual rotary controls.

**Talkback:** Can be routed to all Groups and/or Aux 1-2, 3-4, 5-6 & 7-8. A rotary control governs level.

**Stereo returns:** Two are provided. Ste Ret 1 and 2 can be routed to Groups 1/2 and 3/4 respectively, or the main L-R mix.

**Rec/Alt output:** Post-fade send from the L-R mix. The C (mono) bus may be added and/or the mix can be mono summed. A rotary control governs level and a switchable limiter is provided.

**Monitoring:** The '2TK' inputs, C (mono) bus or L-R mix can be selected for the control room outputs and headphones. Levels are governed by rotary controls. The '2TK' inputs can also be added to the L-R mix via the '2TK to mix' button.



Group & Master Sections



GB4 32 channel model shown

TYPICAL SPECIFICATIONS

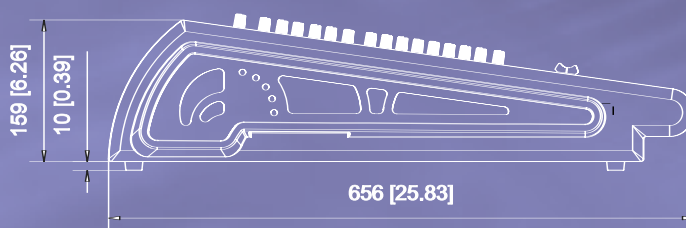
Frequency Response	Mic/Line Input to any output, 20Hz - 20kHz . . . . . <1dB
THD + N	Mic sens. -30dBu, +20dBu at all outputs @1kHz . . . . . <0.006%
Noise	Measured RMS, 22Hz to 22kHz Bandwidth Mic E.I.N. @ unity gain, 150Ω source impedance . . . . . -128dBu Mix Output, 40 inputs routed to mix . . . . . <-82dBu Group Outputs . . . . . <-83dBu Aux Outputs . . . . . <-80dBu Matrix Outputs . . . . . <-89dBu
Crosstalk (@1kHz, typical)	Input Channel Mute . . . . . <-97dB Input Fader cut-off . . . . . <-95dB Pan isolation . . . . . <-77dB Mix route isolation . . . . . <-97dB Group route isolation . . . . . <-97dB Adjacent channel crosstalk . . . . . <-99dB Group to Mix . . . . . <-89dB Aux Send pots offness (typical) . . . . . <-84dB Matrix Send pots offness (typical) . . . . . <-89dB
CMRR	Typical @ 1kHz . . . . . 80dB
Input & Output Max Levels	Mono & Stereo Mic Inputs . . . . . +15dBu Mono & Stereo Line Inputs . . . . . +30dBu Stereo Returns & Insert Returns . . . . . +20dBu Any output . . . . . +20dBu Nominal Operating Level . . . . . 0dBu Headphone Power . . . . . 2 x 250mW into 200Ω

Input & Output Impedances	Mic Inputs . . . . . 2kΩ Line Inputs and Stereo Returns . . . . . 10kΩ Input channels Insert Return . . . 5kΩ with EQ in, otherwise 3kΩ Mix, Group, Aux, Matrix & Direct outputs . . . . . 150Ω Insert sends . . . . . 75Ω Recommended Headphone Impedance . . . . . 50 - 600Ω
High pass filter (Mono input)	100Hz, 18dB per octave
EQ (Mono input)	HF . . . . . 13kHz, +/-15dB, 2nd order shelving Hi-Mid . . . . . 550Hz-13kHz, +/-15dB, Q=1.5 Lo-Mid . . . . . 80Hz-1.9kHz, +/-15dB, Q=1.5 LF . . . . . 80Hz, +/-15dB, 2nd order shelving
Metering	Input channels . . . . . Single tri-colour 4-segment LED bargraph Outputs . . . . . 7 tri-colour 12-segment LED bargraphs
Power consumption	AC mains supply (internal PSU) 85V-270V AC, 50/60Hz universal input Power consumption . . . . . Less than 150W
Weight	12 channel . . . . . 20kg (44.1lbs) 16 channel . . . . . 22kg (48.5lbs) 24 channel . . . . . 27kg (59.5lbs) 32 channel . . . . . 32kg (70.5lbs) 40 channel . . . . . 37kg (81.6lbs)
Operating conditions	Temperature range . . . . . -10°C to +30°C Relative humidity . . . . . 0% to 80%

Note: These figures are typical of performance in a normal electromagnetic environment. Performance may be degraded in severe conditions. All measurements refer to electronically balanced inputs and outputs with VCAs enabled. Input and output transformers may affect these specifications.

DIMENSIONS

Frame Size	Width
12 Ch	730mm (28.73")
16 Ch	842mm (33.13")
24 Ch	1065mm (41.93")
32 Ch	1300mm (51.17")
40 Ch	1523mm (59.96")



Soundcraft Registered Community Trade Mark/RTM No. 000557827

**SOUNDCRAFT**

HARMAN INTERNATIONAL INDUSTRIES LTD., CRANBORNE HOUSE, CRANBORNE ROAD, POTTERS BAR, HERTS, EN6 3JN, UK  
 T: +44 (0)1707 665000 F: +44 (0)1707 660742 E: info@soundcraft.com

**SOUNDCRAFT USA**

8500 BALBOA BLVD., NORTHRIDGE, CA 91329, USA  
 T: +1-818-920-3212 F: +1-818-920-3208 E: soundcraft-usa@harman.com

[www.soundcraft.com](http://www.soundcraft.com)

Soundcraft reserves the right to improve or otherwise alter any information supplied in this document or any other documentation supplied hereafter. E&OE 09/04  
 This equipment complies with the EMC Directive 89/336/EEC

Part No: ZL0626

**H** A Harman International Company

