

21 buss live sound  
console

This mixer looks, feels and performs like a true workhorse. Like its siblings in the **GL** range, we built **GL4000** to be equally at home in the front-of-house position or in monitor land. We also packed in a really serious set of live recording tools (someone always wants a tape of the show don't they?) Although we've certainly been generous with the feature set, we were determined to make **GL4000** really simple to use, so anyone with reasonable mixing skills should be able to use one to run a world-class show with a bit of practice. Our efforts have been rewarded by the sight of so many **GL4000**s succeeding in high-profile roles where you'd normally expect to find something costing 10 times more.

## FEATURES:

- Dual Functionality** → GRP/Aux Mode switches **reverse** aux faders with the group and L&R faders giving up to **10 monitor sends** with inserts on 100mm faders. A **Centre Mode** switch converts the **100mm C fader** to engineer's **listen wedge control** with insert
- Frames Available** → **24, 32, 40, 48 channels** available. **A,B,C & D** versions of each frame size provide choice of stereo configurations: **A:** all mono; **B:** 4 st to right of master section; **C:** 4 st on outside right; **D:** 8 st on outside right.
- 8 Audio Groups** → Assigned from paired routing buttons and pan from channels. Groups access LR & M busses and have XLR outputs with inserts. Groups have 4 segment led pre-fade meters and **12 segment, 3 colour peak** reading meter access plus **VU** meters in meterbridge on outputs
- 10 Auxiliary Sends** → 10 auxiliaries switchable pre/post fade in blocks: 1-4, 5-8, 9-10. Aux **10** can control the **direct out**. Aux masters have **pre-fade metering, faders** and **mutes**. Auxes 1-4 have **matrix link** switches to allow groups, LR & M access to the aux buss. All auxes have **inserts** and **XLR** outputs and can be controlled by the main faders if desired
- Left Right & Mono busses** → Available from channels and groups. LR & M have **12 segment, 3 colour peak reading meter** access plus VU meters in bridge. GL4000 also includes secondary L&R output with level and pre/post fader select on TRS jacks (can swap with the aux 9-10 XLR outs with inserts)
- 11x4 Matrix** → Fed from the **groups** and the **LR & M** busses. Matrix outputs are selectable to TRS jacks or XLRs with inserts. Aux link switches feed the matrix into the aux buss for expanded sends from all the console sections
- 8 Mute Groups** → **8 master** mute group buttons with single / multi mode and preview facility. Groups are edited 'off-line' and channels can be made 'safe'. Input channels, auxes, groups and LRM sections all have 'soft' mute buttons
- 4 Band EQ plus HPF** → **Separate** controls for **sweep** and **cut/boost** on all sections. Mid bands have switchable **Q**. **HPF** is swept from off-20-400 Hz
- Dual Stereo Channels** → The GL4000 can be ordered with **0, 4 or 8** stereo input channels with dual inputs: **XLR mic/line** with **insert** and **stereo [TRS] jack** with **width** control, reverse on right input signal and stereo PFL. A **direct to L-R** button routes the stereo line-in to the mix buss, allowing the channel to be used on the XLR input alone if desired. Either source can use the main channel with **4 band EQ** and 10 auxiliary sends
- Trim pots** → The channel direct outputs and group outputs can be controlled by trim controls, selectable pre / post fader, ideal for recording applications
- Balanced XLR & Inserts** → **Gold plated** XLR connectors. **Separate balanced send and return inserts [TRS]** on channels, auxes, groups, and LRM busses
- PAFL system** → **Stereo PFL** with trim. **Quicksolo** ('solo-in-place') with **last solo / mix** toggle facility. Channels can be made solo 'safe'
- 128 Mute Patches** → Show control of 128 patch memories with MIDI interface and display. Patch recall can be **manual** or **auto increment**
- Talkback** → Talk to the **groups, auxes, matrix** and **LRM** outputs. +48V and trim control for mic
- Engineer's Toolbox** → **2 headphone, wedge** and **local** monitor controls, -20dB 'dim' when TB active. Stereo / mono selection, direct outs and groups can be 'trimmed' for recording.
- Lamps** → 2 XLR lamp sockets are provided
- PSU** → **RPS11** 300W 3U rack mounting supply. Optional RPSD2 1U dual supply **combiner** allows 2 PSU's to link up to the console for redundant supply backup, with monitoring
- Configuration Options** → **Internal links to configure:** individual aux sends as pre/post fader and pre EQ. Isolate pre-fade aux from channel mute

# GL 4000



## Technical Specifications

0 dBu = 0.775 Volts rms

### Operating levels

Internal operating level	0dBu - channels, -2dBu mix
Internal headroom	+21dB channels, +23dB mix to output
Max outputs	balanced +27dBu >2k ohm max load Unbalanced +21dBu >2k ohm
Channel inserts	0dBu
Output inserts	-2dBu

### Frequency Response Measured 20Hz to 20kHz ref 1kHz

Mic to mix (+40dB)	+0/-0.5dB
Line to mix (0dB)	+0/-0.5dB

### Distortion THD + noise measured @ 1kHz +20dBu

Mic to mix (+40dB)	0.006%
Line to mix (0dB)	0.006%

### Crosstalk Referred to driven channel @ 1kHz

Channel to channel	>100dB
Mute shutoff	>85dB
Fader shutoff	>90dB

### C.M.R.R. Common mode rejection @ 1kHz

Mic (+40dB)	>80dB
Line (0dB)	>55dB

### Noise Performance Measured rms 22Hz TO 22kHz Bandwidth

Mic ein	-128dB 150ohm source
Line pre-amp (0dB)	<-91dBu
Residual output noise	<-98dBu (-102dB S/N)
MIX noise, nothing routed	<-87dBu (-91dB S/N)
MIX noise, 24 channels routed	<-81dBu (-85dB S/N)

### Metering

Input meters	4 segment led (signal, 0, +6, peak)
Mix meters	4 segment led (signal, 0, +6, peak)
Output meters	12 segment led
Led meter response	Peak reading
Peak indicators	On 5dB before clipping
Signal indicators	on -20dBu
Integral VU meterbridge	illuminated VU moving coil meters

### Accessories

#### Expander (up to 48 channels max)

<b>GL4000-8M</b>	8 mono channels expander
<b>GL4000-4SM</b>	4 stereo, 4 mono expander
<b>GL4000-4MS</b>	4 mono, 4 stereo expander
<b>Sys-Link™</b>	<b>GL4000-SL</b> Sys-Link™ expander option
<b>Power Supply</b>	RPS11 300W rack power unit with DC cable
	RPSD2 Dual supply combiner/monitor

### Mechanical specifications

Dimensions in mm	Width	Depth	Height	Weight
<b>GL4000M-824</b>	1166 (45.9")	750 (29.5")	285 (11")	47kg (104lb)
<b>GL4000M-832</b>	1421 (56")	750	285	57kg (126lb)
<b>GL4000M-840</b>	1676 (66")	750	285	67kg (148lb)
<b>GL4000M-848</b>	1931 (76")	750	285	77kg (170lb)



## Connections

### INPUTS

Input Type	Connector	Balance	Impedance	Level
Mic inputs	XLR	Female, balanced, pin 2 hot	2k ohms	-6dBu to -60dBu
Mic/line + pad	XLR	Female, balanced, pin 2 hot	10k ohms	+14dBu to -40dBu
Mono inputs	TRS jack	Balanced, tip hot, ring cold	10k ohms	+14dBu to -40dBu
	XLR	Mono - female, balanced, pin 2 hot	10k ohms	-40dBu to +10dBu
Stereo inputs	TRS jack	Balanced, pin 2 hot	10k ohms	off to -10dBu
2-track return	TRS jack	Unbalanced	>7k ohms	off to +10dBu
Insert return	TRS jack	Balanced, pin 2 hot	>7k ohms	off to +10dBu

### OUTPUTS

Output Type	Connector	Balance	Impedance	Level
Direct outs	TRS jack	Impedanced balanced	<50 ohm	0dBu, +21dBu
Matrix outs	TRS jack	Impedanced balanced	<50 ohm	-2dBu, +21dBu max
	TRS jack	Balanced option, tip hot, ring cold	<50 ohm	-2dBu, +21dBu max
Aux 1-10 outs	XLR	Male, balanced, pin 2 hot	<50 ohm	+4dBu, +27dBu max
L2/R2	TRS jack	Impedanced balanced	<50 ohm	variable +21dBu max
LRM outs	XLR	Male, balanced, pin 2 hot	<50 ohm	+4dBu, +27dBu max
Groups 1 - 8	XLR	Male, balanced, pin 2 hot	<50 ohm	+4dBu, +27dBu max