

# GL2400

The GL2400 is a mixing classic, industry standard in venues and hire stocklists across the globe. The ultimate 4 group dual-function mixer, the GL2400 is designed for the latest in modern engineering techniques, and every detail in this uniquely capable small footprint mixer has been carefully thought out to provide the very best mixing experience.



## FEATURES

- 16, 24, 32, 40 channel frames
- LR and M main outputs
- 4 Audio groups with pan control
- 6 Auxiliary sends with per-channel pre/post fader switching
- 2 stereo channels each with mic and dual stereo line inputs
- 7x4 Matrix
- Proper dual functionality for FOH and/or Monitor mixing
- M can be configured as LR sum, wedge, or aux-fed sub or C master
- Recording capable with channel direct outputs
- Matrix external inputs with level trims and common input capability
- Stereo channel line inputs can be independently routed to LR
- Stereo channel mic input breakpoints for cross patching into matrix
- Responsive 4 band, 2 sweep EQ
- 100Hz high pass filters
- Individual phantom power and polarity switching
- Dedicated channel, master and stereo monitor meters
- Internal jumper plugs for pre/post-EQ aux, direct out and other options
- Mutes, meters and AFL on all fader masters
- Assignable talkback
- 1kHz oscillator and pink noise generator



Whether mixing FOH, monitors, or both, recording live or in the studio, installed in a busy or house of worship, out on the road touring or earning its keep in rental stock, the GL2400 provides the perfect solution.

**GL2400** is a compact, dual function, LR, Mono sum, 4 group, 6 aux, 7x4 matrix console. Frame sizes range from 16 to 40 channels including 2 dual stereo channels.



- 2-track monitoring and replay to LR
- Headphones and local monitor outputs
- Electronically balanced XLR outputs with +26dBu drive capability
- Preamp 74dB range with +34dBu input capability for mic or line
- Ultra low noise mix head amp design
- Internal power supply with socket for MPS12 backup supply (16 to 32 channel models)
- External RPS11 power supply and socket for another RPS11 as backup (40 channel model)
- 100mm dust protected faders
- Individual circuit card assembly with nutted pots
- Sys-Link V2 console input/output linking option
- 4-pin XLR lamp sockets – **ALLEN&HEATH** LEDlamp available



# GL2400

This section of the mixer console contains channels 16, 15, and 14. Each channel features a +48V phantom power switch, a POLARITY switch, a LINE (PAD) switch, and a GAIN knob. The frequency response is controlled by ST1, ST2, and ST3 knobs, with ST1 and ST2 also having STEREO (CH15/CH16) and HPF (100Hz) switches. HF and LM frequency sliders are present, along with EQ IN switches. Each channel has six auxiliary send knobs (AUX 1-6) with POST/PRE switches, and a PAN knob with ODD/EVEN and MUTE switches. PFL and PKI (+6, 0, -6, -10) meters are located at the bottom of each channel.

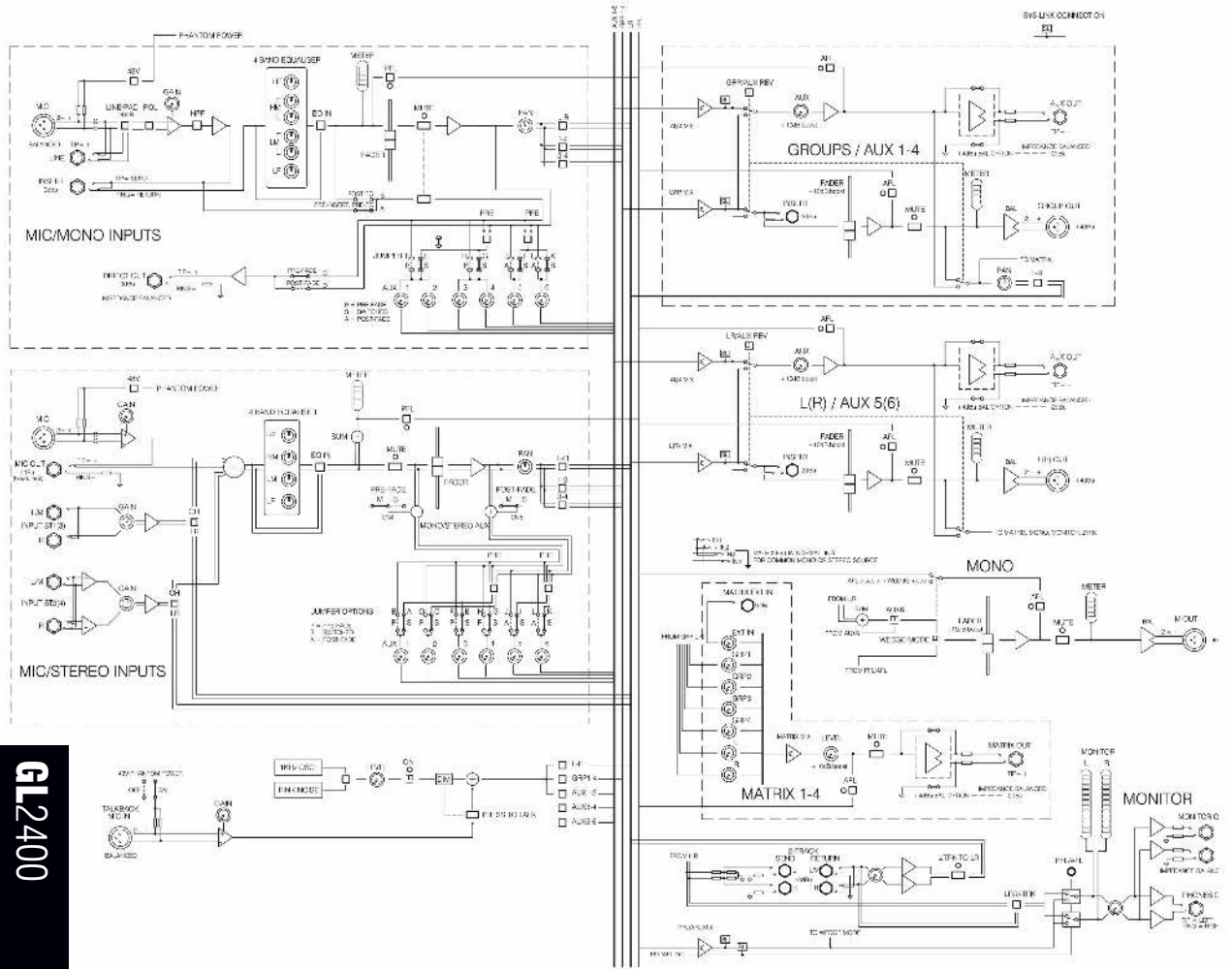
The center section features a 4x4 grid of group channels (GRP 1-4 for each of the four stereo pairs). Each group channel has an EXT IN knob, a GRP knob, and a LEVEL knob. Below the grid are four MUTE switches and four AFL (AFL) meters. To the right of the grid is a TALKBACK MIC section with MIN/MAX knobs and a PHONES jack. Below that is an OSC/NOISE section with a 1 MHz PINK switch and an ON button. A 2TRK REPLAY section includes a 2TRK TO LR switch and a SELECT switch. A large L/R LED level indicator is positioned to the right of the 2TRK REPLAY section. Below the level indicator are several switches: L/R, GRP 1-4, AUX 1-2, AUX 3-4, AUX 5-6, TALK, and 2TRK.

This section contains six auxiliary channels (AUX 1-6). Each channel has an AUX knob, an AFL meter, and a REV switch. Below the knobs are four GRP TO LR switches and four PAN knobs. A LISTEN WEDGE section includes MONO (L+R) and AUX 6 (AUX FID SUB) switches. At the bottom are four MUTE switches and four AFL meters.

This section contains six PKI (+6, 0, -6, -10) meters, each with a SIG indicator and a MUTE switch. Below the meters are four MUTE switches and four AFL meters. A LISTEN WEDGE section includes MONO (L+R) and AUX 6 (AUX FID SUB) switches. At the bottom are four MUTE switches and four AFL meters.

The master section features four group channels (GRP 1-4) and three master channels (L, R, M). Each group channel has an AUX knob and a level meter. The master channels (L, R, M) have AUX knobs and level meters. Below the meters are four MUTE switches and four AFL meters. A LISTEN WEDGE section includes MONO (L+R) and AUX 6 (AUX FID SUB) switches. At the bottom are four MUTE switches and four AFL meters.

This section of the mixer console contains channels 17, 18, and 19. Each channel features a +48V phantom power switch, a POLARITY switch, a LINE (PAD) switch, and a GAIN knob. The frequency response is controlled by ST1, ST2, and ST3 knobs, with ST1 and ST2 also having STEREO (CH15/CH16) and HPF (100Hz) switches. HF and LM frequency sliders are present, along with EQ IN switches. Each channel has six auxiliary send knobs (AUX 1-6) with POST/PRE switches, and a PAN knob with ODD/EVEN and MUTE switches. PFL and PKI (+6, 0, -6, -10) meters are located at the bottom of each channel.



**GL2400**

ML Consoles	A mm(")	B mm(")	C mm(")	D mm(")	Weight kg(lb)	
<b>ML3000-24</b>	252 (10)	640 (25)	110 (4)	1141 (45)	30 (66)	
<b>ML3000-32</b>	252 (10)	640 (25)	110 (4)	1396 (55)	40 (88)	
<b>ML3000-40</b>	252 (10)	640 (25)	110 (4)	1651 (65)	50 (110)	
<b>ML3000-48</b>	252 (10)	640 (25)	110 (4)	1906 (75)	60 (132)	
GL Consoles	A mm(")	B mm(")	C mm(")	D mm(")	Weight kg(lb)	
<b>GL2400-416</b>	150 (6)	560 (22)	57 (2)	609 (24)	17 (36)	
<b>GL2400-424</b>	150 (6)	560 (22)	57 (2)	817 (32)	22 (47)	
<b>GL2400-432</b>	150 (6)	560 (22)	57 (2)	1025 (40)	27 (58)	
<b>GL2400-440</b>	150 (6)	560 (22)	57 (2)	1233 (49)	32 (69)	
<b>GL2800-824</b>	170 (7)	650 (26)	62 (2)	944 (37)	29 (64)	
<b>GL2800-832</b>	170 (7)	650 (26)	62 (2)	1171 (46)	35 (77)	
<b>GL2800-840</b>	170 (7)	650 (26)	62 (2)	1398 (55)	41 (90)	
<b>GL2800-848</b>	170 (7)	650 (26)	62 (2)	1625 (64)	47 (103)	
<b>GL2800-856</b>	170 (7)	650 (26)	62 (2)	1852 (73)	53 (117)	
GL Consoles	A mm(")	B mm(")	C mm(")	D mm(")	Weight kg(lb)	
<b>GL3800-824</b>	275 (11)	691 (27)	78 (3)	1026 (40)	33 (73)	
<b>GL3800-832</b>	275 (11)	691 (27)	78 (3)	1281 (50)	42 (92)	
<b>GL3800-840</b>	275 (11)	691 (27)	78 (3)	1536 (60)	51 (112)	
<b>GL3800-848</b>	275 (11)	691 (27)	78 (3)	1791 (71)	60 (132)	

## CONNECTIONS

<b>XLR Inputs</b>	Female	Pin2 = +ve polarity	Pin3 = -ve polarity	Pin1 = ground	Chassis = chassis
<b>XLR Outputs</b>	Male	Pin2 = +ve polarity	Pin3 = -ve polarity	Pin1 = ground	Chassis = chassis
<b>1/4" TRS Jacks</b>					
Balanced Input, Insert Return	TRS	Tip = +ve polarity	Ring = -ve polarity	sleeve = ground/chassis	
Balanced Output, Insert Send	TRS	Tip = +ve polarity	Ring = -ve polarity	sleeve = ground/chassis	
Insert (unbalanced)	TRS	Tip = send signal	Ring = return signal	sleeve = ground/chassis	
Unbalanced Input	TRS	Tip = signal	Ring = ground	sleeve = ground/chassis	
<b>RCA Phono</b>	Socket	Tip = signal		Outer = ground/chassis	

# TECHNICAL SPECIFICATIONS

	ML3000	GL3800	GL2800	GL2400
<b>OPERATING LEVELS</b>				
<b>Channels</b>	0dBu, +21dB Headroom	0dBu, +20dB Headroom	0dBu, +20dB Headroom	0dBu, +20dB Headroom
<b>Mix</b>	-2dBu, +23dB Headroom	-2dBu, +22dB Headroom	-2dBu, +22dB Headroom	-2dBu, +22dB Headroom
<b>Main Outputs</b>	0dBu	+4dBu	+4dBu	+4dBu
<b>Maximum output</b>	+23dBu	+26dBu	+26dBu	+26dBu
<b>Mic Pre-Amp Sensitivity</b>	-60 to +10dBu	-60 to +14dBu	-60 to +14dBu	-60 to +14dBu
<b>FREQUENCY RESPONSE (20Hz-30kHz)</b>				
<b>Mic to Main output (+40 dB)</b>	+0/-0.5dB	+0/-0.5dB	+0/-0.5dB	+0/-0.5dB
<b>Line to Main output (0dB)</b>	+0/-0.5dB	+0/-0.5dB	+0/-0.5dB	+0/-0.5dB
<b>DISTORTION at 1kHz +14dBu out</b>				
<b>THD + Noise (mic in +40dB gain)</b>	<0.01%	<0.003%	<0.003%	<0.004%
<b>THD + Noise (line in 0dB gain)</b>	<0.01%	<0.005%	<0.005%	<0.006%
<b>COMMON MODE REJECTION @1kHz</b>				
<b>Mic Input +40dB gain</b>	>80dB	>85dB	>85dB	>80dB
<b>Mic Input with Pad 0dB gain</b>	>50dB	>55dB	>55dB	>55dB
<b>CROSSTALK @1kHz</b>				
<b>Adjacent Channel</b>	<-95dB	<-97dB	<-97dB	<-93dB
<b>Mute Shutoff</b>	<-90dB	<-88dB	<-88dB	<-94dB
<b>Fader Shutoff</b>	<-90dB	<-90dB	<-90dB	<-90dB
<b>NOISE PERFORMANCE</b>				
<i>(22Hz-22kHz unweighted)</i>				
<b>Mic EIN with 150ohm source</b>	-128dB	-128dB	-128dB	-128dB
<b>Residual output noise - main outputs</b>	<-98dBu	<-98dBu	<-98dBu	<-98dBu
<b>Main Mix noise (nothing routed)</b>	<-94dBu	<-91dBu	<-91dBu	<-92dBu
<b>Main Mix noise (24 channels routed)</b>	<-82dBu (82dB S/N)	<-86dBu (90dB S/N)	<-86dBu (90dB S/N)	<-86dBu (90dB S/N)
<b>CONNECTION IMPEDANCES</b>				
<b>Mic Inputs</b>	22k ohms	2k ohms	2k ohms	2k ohms
<b>Line Inputs</b>	>10k ohms	>10k ohms	>10k ohms	>10k ohms
<b>Outputs</b>	<75 ohms	<75 ohms	<75 ohms	<75 ohms
<b>EQUALISATION</b>				
<b>Gain (each band)</b>	+/- 15dB	+/- 15dB	+/- 15dB	+/- 15dB
<b>Mono Channel Low Frequency</b>	Shelf 60Hz	Shelf 80Hz	Shelf 80Hz	Shelf 80Hz
<b>Mono Channel Low Mid Frequency</b>	35Hz - 1kHz Q=2	35Hz - 1kHz Q=1.8	35Hz - 1kHz Q=1.8	35Hz - 1kHz Q=1.8
<b>Mono Channel High Mid Frequency</b>	500Hz-15kHz Q=2	500Hz-15kHz Q=1.8	500Hz-15kHz Q=1.8	500Hz-15kHz Q=1.8
<b>Mono Channel High Frequency</b>	SShelf 12kHz	Shelf 12kHz	Shelf 12kHz	Shelf 12kHz
<b>Stereo Channel Frequencies</b>	60Hz,250Hz,2.5kHz,12kHz Q=1.8	60Hz,250Hz,2.5kHz,12kHz Q=1.8	60Hz,250Hz,2.5kHz,12kHz Q=1.8	60Hz,250Hz,2.5kHz,12kHz Q=1.8
<b>Filter (mono input)</b>	SSwept Off - 400Hz	Switch 100Hz	Switch 100Hz	Switch 100Hz
<b>METERING</b>				
<b>Reading referred to Main outputs</b>	00VU = 0dBu	0VU = +4dBu	0VU = +4dBu	0VU = +4dBu
<b>Peak indication threshold</b>	5dB before clipping	5dB before clipping	5dB before clipping	5dB before clipping
<b>SYSTEM</b>				
<b>Lamp connectors</b>	3 x 4pin XLR-F	2 x 4pin XLR-F	2 x 4pin XLR-F	up to 2 x 4pin XLR-F
<b>Power supply</b>	RPS11	RPS11	RPS11	Internal (16, 24, 32)

# Accessories

## PSU FOR ML3000, GL3800, GL2800, GL2400, GL2400-40

The RPS11 is a rugged linear 300W 3U rack-mount power supply with DC cable. A second RPS11 can be connected through the RPSD2 Auto-Switching PSU, which monitors the console's power supply and allows silent switching between the two supplies



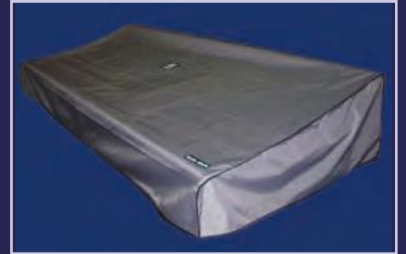
## SOFTWARE

**ML** Archiver software is a Windows application that runs on a PC connected to your console.

It lets you access the 128 onboard snapshots, save the console settings and snapshot memories to a disk file, and is used to archive settings as a backup or for future recall

## DUST COVER

A nylon cover that comes in various sizes, tailored to fit the **ML**'s differing frame dimensions



## SYS-LINK - ML3000

The SYS-LINK V2 option allows the **ML3000** console to be easily linked to other **ALLEN & HEATH** consoles to expand the number of channels in the mix. Fitting requires the removal of connector blanking plates and the installation of two internal circuit cards

## LED LAMP

**ALLEN & HEATH** also manufactures LEDlamp, an 18" 4 pin XLR gooseneck console lamp containing a built-in thumbwheel dimmer. The stylish lamp replaces traditional filament console lamps with more user friendly cool white light, and has the additional advantages of lower heat discharge and longer life



# Accessories

## PSU (back-up) FOR GL2400-16, 24 & 32

The MPS12 is a back-up power supply which connects via an internal socket to the existing built-in power supply. An optional rack mount face plate is provided



## SYS-LINK - (all GL Series)

The Sys-Link V2 option allows **GL** mixers to be easily linked to other **ALLEN & HEATH** consoles to expand the number of channels in the mix. Fitting requires the removal of connector blanking plates and the installation of internal circuit cards

## DUST COVER - all GL Series

A nylon cover that comes in various sizes, tailored to fit the **GL**'s various frame dimensions