MixWizard⁴

PROFESSIONAL MIXING CONSOLES

MixWizard⁴

The MixWizard series has been at the heart of the Allen & Heath range since the mid 1990s and with close to 100,000 mixers sold it has earned industry standard status for its proven quality, versatility and ruggedness.

Now in its 4th generation, the latest models in the MixWizard family feature enhanced styling and functions, whilst remaining faithful to the audio and build quality standards that have secured a place for the Wizards with rental companies, live venues, houses of worship, recording studios and broadcasters.

Every MixWizard features our highly acclaimed 4 band EQ with 2 sweepable mids, high quality 100mm faders, 6 auxiliary sends, 12 segment bargraph metering and our unique QCC connector system for easy desktop, rack or flightcase mounting.

A major new addition for all 4th generation MixWizards is the option to fit a multichannel USB interface with a high quality 16 channel soundcard for easy multitrack recording and 2-track playback. Another popularly requested upgrade is EQ in/out switching, which can also be found across the new range. The WZ⁴ 16:2 and WZ⁴ 12:2 also benefit from two newly designed digital FX engines, providing a carefully selected suite of 20 studio quality FX presets.

If you're looking for professional grade, all-purpose analogue mixers in a compact, rack mountable frame, the MixWizards continue to set the bar.

Features

High Performance Preamp

The MixWizard[4] preamp will delight hardcore analogue audiophiles with its extremely low noise, minimal distortion, wide yet smooth gain law and ample headroom. The preamp was developed by leading analogue designer, Mike Griffin, and is adapted from the design used on our large format GL series consoles.
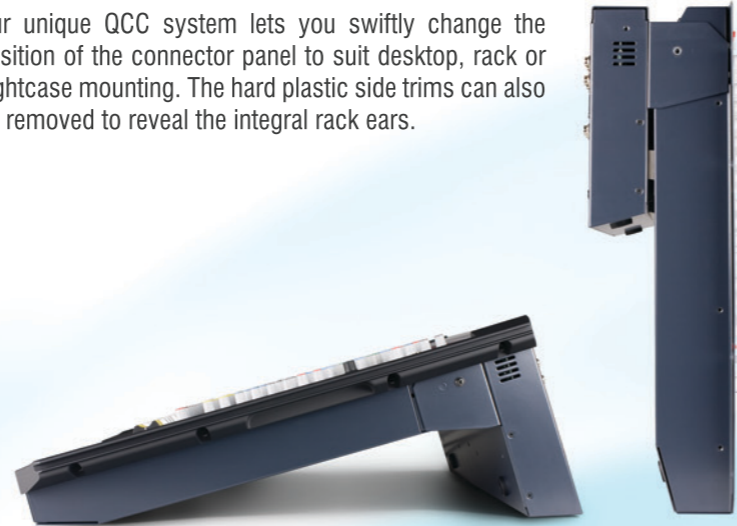
Quick Change Connectors (QCC)

Our unique QCC system lets you swiftly change the position of the connector panel to suit desktop, rack or flightcase mounting. The hard plastic side trims can also be removed to reveal the integral rack ears.

Auxiliary sends

All MixWizard[4] models offer a generous 6 auxes, each with its own master level rotary control and impedance balanced TRS outputs. A clever monitoring system lets you listen to aux outputs in mono or in stereo pairs. Auxes 1-2 are routed pre fade for monitors; auxes 3-4 are switchable pre or post fade for monitors, FX or additional recording or zone feeds; and auxes 5-6 are routed post fader for FX and aux-fed sub. These pre/post settings can be changed by replugging internal jumpers.

Dual FX Engines

WZ[4] 12:2 and WZ[4] 16:2 are both equipped with 2 newly designed stereo FX engines, providing 20 studio quality FX presets. The FX interface has also been upgraded, with a 7 segment LED display, tap tempo and an encoder to adjust FX parameters. The FX algorithms were developed by the same in-house team that created the highly respected FX suite for our iLive pro touring series.

4 band EQ

The MixWizards provide the kind of clean, responsive and accurate equalisation control normally only found in large format desks. 4 extended range overlapping bands, 2 with centre frequency sweeps, let you compensate for microphone and auditorium frequency responses, add sparkle and presence to voices and instruments, control sibilance or add colour.

The HF and LF are shelving filters which affect high frequencies above 12kHz, and low frequencies below 80Hz. HM and LM are bell shaped peak/dip filters which affect frequencies around a centre point which can be swept from 500Hz to 15kHz and 35Hz to 1kHz respectively. These have a width (Q) of 1.8. All bands can be boosted or cut by up to 15dB and have a centre detent 0dB position. EQ In/Out switching makes it easy to compare the sound with the equaliser switched in or out of the circuit.

Dual Stereo Channels

On WZ[4] 14:4:2 and WZ[4] 12:2, two dual stereo channels with TRS connectors and independent gain controls are included for FX returns and stereo line sources. One stereo input can feed straight to LR, so providing extra returns. The stereo channels are furnished with 4 band EQ and can be routed to all 6 auxiliary sends.

USB Multitrack Recording

All MixWizard[4] consoles can be fitted with an optional kit for USB multitrack recording. The high quality soundcard sends 16 channels to a computer for recording or processing, while a stereo channel is returned to the mixer for monitoring or as an FX return.

The USB optional interface is purchased separately (part number 004-232JIT) and should be fitted by an approved service agent.

USB send routing:
WZ[4] 12:2 - Mono channels 1-8 direct out,
Aux output 1-6, L/R insert sends or AB out.

WZ[4] 16:2 - Mono channels 1-14 direct out,
Mono channels 15-16 direct out or AB out.

WZ[4] 14:4:2 - Mono channels 1-10 direct out,
Insert sends group 1-4,
Main L/R insert sends or Matrix outputs.

Build Quality

We are proud to build the MixWizards using the same rigorous construction methods that have underpinned our analogue mixer designs for more than 40 years. Every channel has its own individual, vertically mounted circuit board for rigidity and ease of servicing. Every rotary control is firmly secured to the front panel with a steel nut, dissipating impacts through the chassis and protecting the circuits within. No wonder the MixWizards have carved out a reputation for taking all the hardships of life on the road and still delivering superb performance.
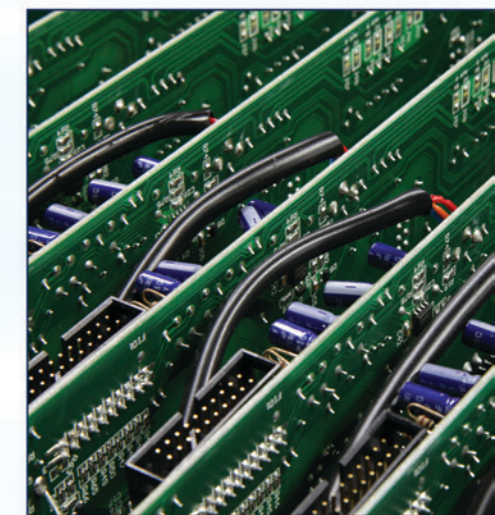
WZ⁴ 16:2

16 MIC/LINE INPUTS

6 AUXES

With its simplicity, quality and plentiful inputs, WZ⁴ 16:2 will be loved by seasoned engineers and novice operators alike. This is a true all-purpose mixer, providing a full 16 high specification mic/line inputs in a compact, straightforward format that has made it a consistent best seller.

- 19" Rack mountable
- 16 mic/line inputs with balanced XLR/TRS jack, insert and direct output
- 100mm faders
- 4 band EQ with 2 swept mids
- 6 Aux sends - 2x pre fade / 2x switched / 2x post fade*
- 2 Stereo returns
- Dedicated mono output fader - can be switched to provide an L+R mono feed for a centre or fill speaker, or sub bass feed
- Independent A-B output for 2-track recording, monitor foldback, speaker fills etc
- Tri-colour, 12 segment bargraph metering
- Twin FX engines with 20 studio quality FX presets
- +48V Phantom Power
- Signal and Peak LEDs
- Talkback Mic XLR with trim
- Lamp socket
- USB multitrack recording option
- Footswitch connector (mutes/unmutes the ST1 FX Return)

*Can be reconfigured with internal jumpers

WZ⁴ 12:2

8 MIC/LINE INPUTS   **6** AUXES

WZ⁴ 12:2 is your ideal companion for those scenarios where you don't need masses of channels, but you still need to deliver superb audio quality. The 2 dual stereo channels are perfect for stereo playback or for hooking up keyboards and other stereo instruments.

ALLEN&HEATH MixWizard WZ⁴ 12:2

- 19" Rack mountable
- 8 mic/line inputs with balanced XLR/TRS jack, insert and direct output
- 100mm faders
- 2 Dual Stereo inputs with separate gain and 'ON' switches allowing inputs to be selected independently or mixed together
- 4 band EQ with 2 swept mids
- 6 Aux sends - 2x pre fade / 2x switched / 2x post fade*
- 2 Stereo returns
- Dedicated mono output fader - can be switched to provide an L+R mono feed for a centre or fill speaker, or sub bass feed
- Independent A-B output for 2-track recording, monitor foldback, speaker fills etc
- Tri-colour, 12 segment bargraph metering
- Twin FX engines with 20 studio quality FX presets
- +48V Phantom Power
- Signal and Peak LEDs
- Talkback Mic XLR with trim
- Lamp socket
- USB multitrack recording option
- Footswitch connector (mutes/unmutes the ST1 FX Return)

*Can be reconfigured with internal jumpers

WZ⁴ 14:4:2

10	MIC/LINE INPUTS	2	DUAL STEREO INPUTS
6	AUXES	6x2	MATRIX

Designed as a uniquely versatile live sound mixer, WZ⁴ 14:4:2 is equally at home at Front of House, on Monitors, or doubling up to fill both roles at once.

In FoH Mode, the 4 groups with inserts, 100mm faders and XLR outputs can be routed and panned to the LR mix for flexible sub-mixing. The main LR mix has inserts, separate left and right faders, and XLR outputs to feed the main speaker system. EQ and signal processing can easily be inserted on group and main outputs.

In Monitor Mode, the aux mixes are routed to the group and LR faders, inserts and XLR outputs. The AFL and PFL system is switched to the Mono output to provide an engineer's 'wedge' output. In essence, it's a perfect 6-mix monitor console with additional outputs available from the group busses via the aux master controls.

In Dual Mode some auxes can be used as monitor mixes and some sub-grouping can be used along with the main LR outputs, allowing the engineer to run FoH sound and some Monitor mixes from the same console.

- 19" Rack mountable
- 10 mic/line inputs with balanced XLR/TRS jack, insert and direct output
- 100mm faders
- Reverse switches swap the function of the group and aux masters in Monitor or Dual Mode applications
- 6 Aux sends - switchable pre/post fade
- 4 Audio groups
- 2 Dual Stereo inputs with separate gain and 'ON' switches allowing inputs to be selected independently or mixed together
- 4 band EQ with 2 swept mids
- 6x2 Matrix for providing feeds for in ear monitors, delay speakers, video, broadcast and more
- Oscillator and Pink Noise generator for line-up and speaker testing
- Tri-colour, 12 segment bargraph metering
- +48V Phantom Power
- Signal and Peak LEDs
- Talkback Mic XLR with trim
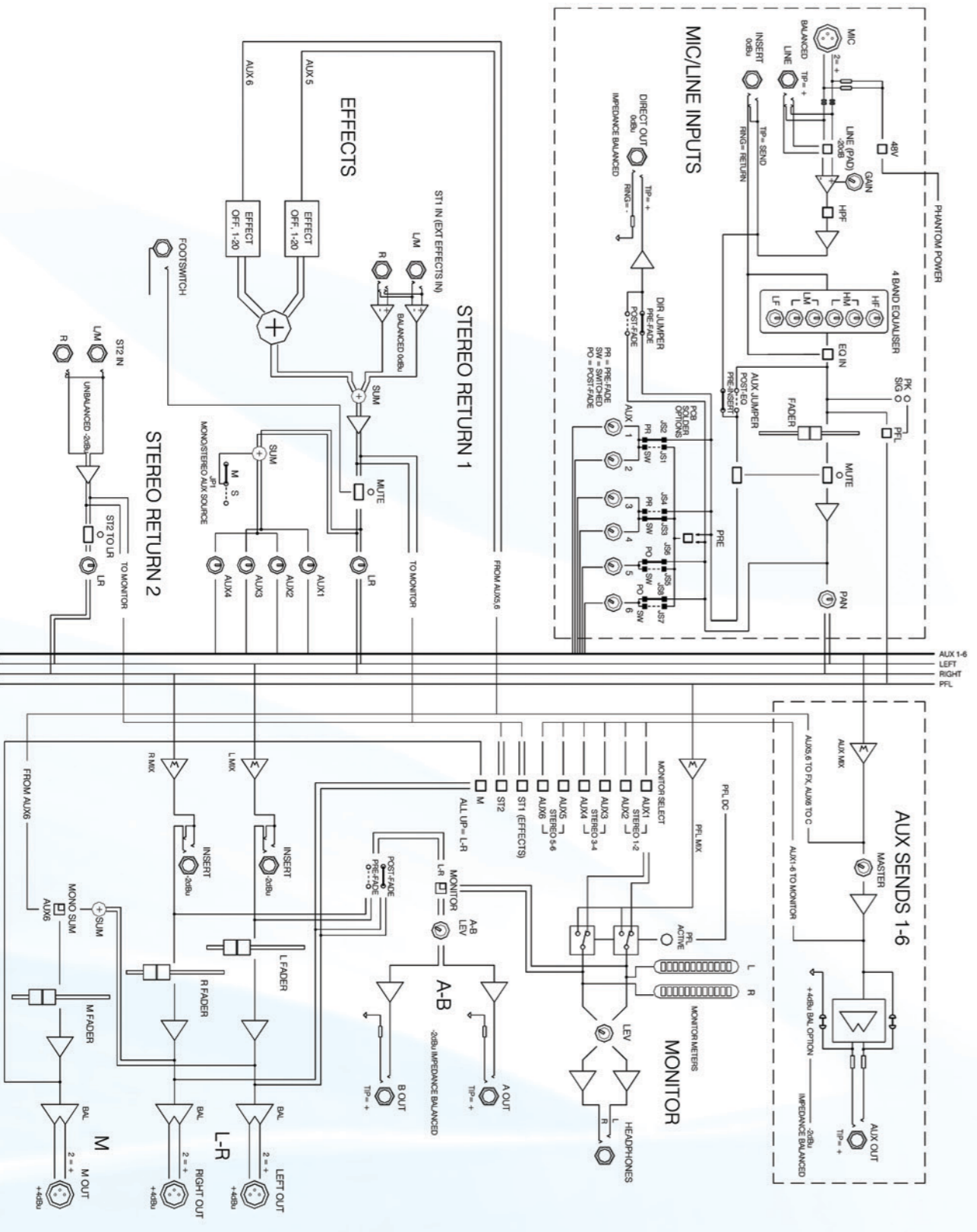- Lamp socket
- USB multitrack recording option
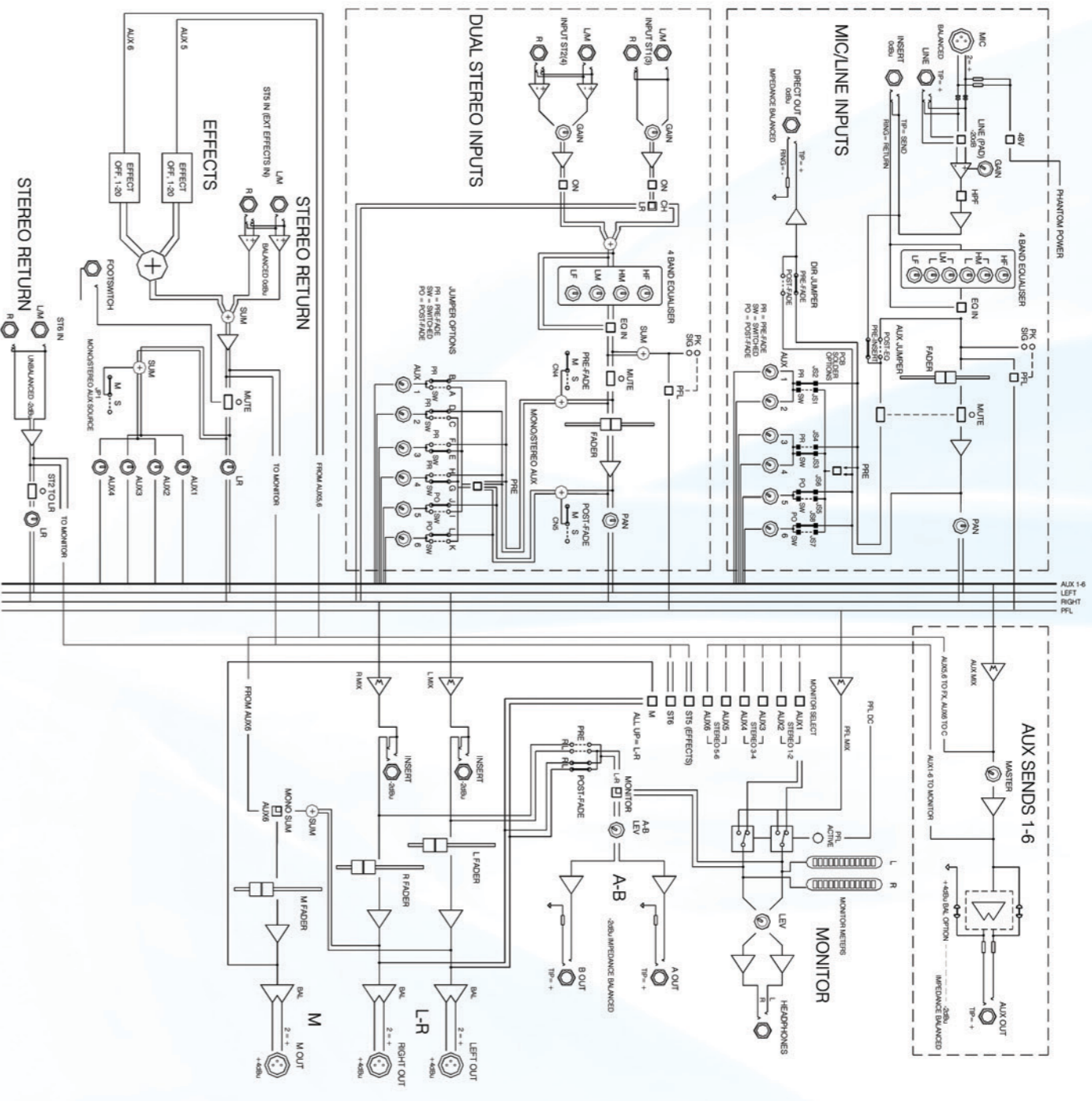
Block Diagram

Block Diagram

Technical Specifications

WZ⁴ 16:2 & WZ⁴ 12:2

Performance

Maximum output level	XLR	+26dBu into 600 ohms max load
	Jack	+21dBu into 2k ohm max load
Internal headroom	Channels	+21dB
	Mix	+23dB
Meters		3 colour LED, quasi peak response
Sensitivity		0VU = +4dBu at XLR output
Master meters		12 segment -30 to +16dB
Channel meters		2 segment -12, +16dB (5dB before clip)
Frequency response		10Hz to 30kHz +/-0.5dB
THD+n at +10dBu 1kHz		Channel to mix out < 0.004%
Crosstalk at 1kHz	Fader shutoff	>90dB
	Channel mute	>90dB
	Inter channel	>90dB
Noise, rms 22Hz to 22kHz	Mic EIN	-127dB
	Residual output noise < -95dBu (-99dB S/N)	
	LR unity fader mix noise < -83dBu (-87dB S/N)	
Channel HPF		12dB/octave below 80Hz
Mono EQ	HF	Shelving, +/-15dB, 12kHz
	HM	Peak/dip, +/-15dB, 500Hz to 15kHz, Q=1.8
	LM	Peak/dip, +/-15dB, 35Hz to 1kHz, Q=1.8
	LF	Shelving, +/-15dB, 80Hz
Stereo EQ	HF	Shelving, +/-15dB, 12kHz
	HM	Peak/dip, +/-15dB, 2.5kHz, Q=1.8
	LM	Peak/dip, +/-15dB, 250Hz, Q=1.8
	LF	Shelving, +/-15dB, 80Hz
Power supply		100-240V, 50/60Hz auto sensing, IEC input
	Power consumption 45W max	
	Mains fuse T630mA L 20mm	

Mechanical

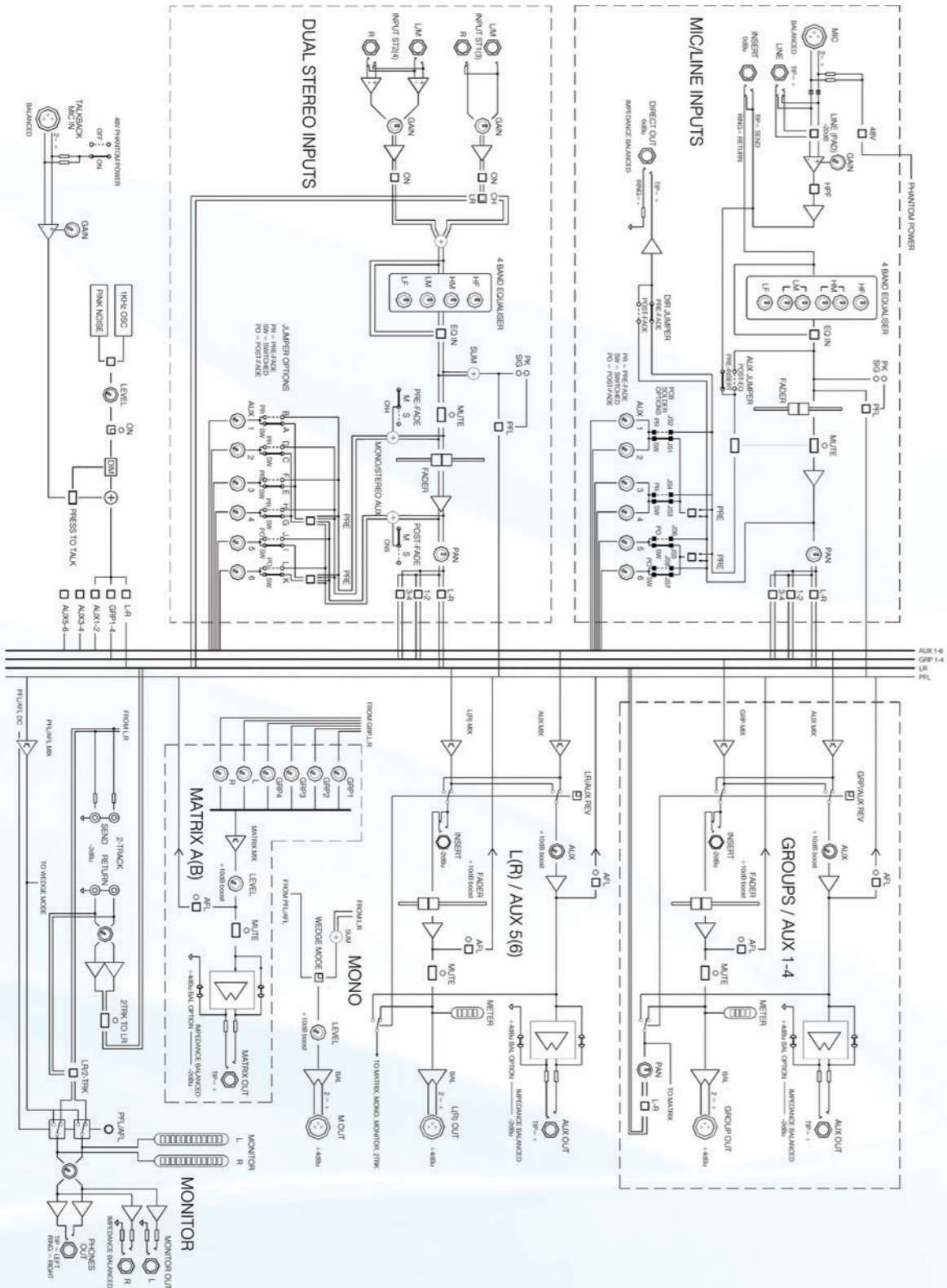|	
Free standing dimensions	W 507 (20") x D 530 (20.9") x H 194 (7.7")
Rack mounted 10U Underside connectors	W 483 (19") x D 122 (4.8") x H 444 (17.5")
Rack mounted 11.2U Rear connectors	W 483 (19") x D 193 (7.6") x H 497 (19.6")
Weight	W4-122 unpacked 11kg (24lbs)
	W4-122 packed 14kg (31lbs)
	W4-162 unpacked 13kg (28lbs)
	W4-162 packed 16kg (35lbs)

WZ⁴ 14:4:2

Performance

Maximum output level	XLR	+26dBu into 600 ohms max load
	Jack	+21dBu into 2k ohm max load
Internal headroom	Channels	+21dB
	Mix	+23dB
Meters		3 colour LED, quasi peak response
Sensitivity		0VU = +4dBu at XLR output
Master meters		12 segment -30 to +16dB
Channel meters		2 segment -12, +16dB (5dB before clip)
Frequency response		20Hz to 50kHz +/-0.5dB
THD+n at +10dBu 1kHz		Channel to mix out < 0.004%
Crosstalk at 1kHz	Fader shutoff	>90dB
	Mute shutoff	>90dB
	Inter channel	>90dB
Noise, rms 22Hz to 22kHz	Mic EIN	-127dB
	Residual output noise < -96dBu (-100dB S/N)	
	LR unity fader mix noise < -84dBu (-88dB S/N)	
	Group unity fader noise < -90dBu (-94dB S/N)	
Channel HPF		12dB/octave below 80Hz
Mono EQ	HF	Shelving, +/-15dB, 12kHz
	HM	Peak/dip, +/-15dB, 500Hz to 15kHz, Q=1.8
	LM	Peak/dip, +/-15dB, 35Hz to 1kHz, Q=1.8
	LF	Shelving, +/-15dB, 80Hz
Stereo EQ	HF	Shelving, +/-15dB, 12kHz
	HM	Peak/dip, +/-15dB, 2.5kHz, Q=1.8
	LM	Peak/dip, +/-15dB, 250Hz, Q=1.8
	LF	Shelving, +/-15dB, 80Hz
Power supply		100-240V, 50/60Hz auto sensing, IEC input
	Power consumption 45W max	
	Mains fuse T630mA L 20mm	

Mechanical

Free standing dimensions	W 507 (20") x D 530 (20.9") x H 194 (7.7")
Rack mounted 10U Underside connectors	W 483 (19") x D 122 (4.8") x H 444 (17.5")
Rack mounted 11.2U Rear connectors	W 483 (19") x D 193 (7.6") x H 497 (19.6")
Weight	W4-1442 unpacked 13kg (28lbs)
	W4-1442 packed 16kg (35lbs)

WZ⁴ 14:4:2

Block Diagram