

Allen & Heath W3-1602

Professional 16 Channel Mixer

MixWizard compact mixers have carved out a unique place in the pro audio pantheon of professional multipurpose consoles. For years, and in every year, Allen & Heath has supplied thousands of MixWizards for hundreds of different applications, all of which have four requirements in common - great sound, high quality, ease of use and lots of really useful features.



We now present the third generation of MixWizard, with even better sound quality, new preamp design, tailored EQ frequencies, an extra mono output on fader which can be switched to provide a sub-bass mix from channel aux 6, and several routing changes to make the engineer's life easier. Put together with new styling, extra lamp socket, new Sys-Link options and backup power supply and it's easy to see that we just made the best even better.

New Features for the MixWizard

- Performance improvements with new mic preamp design and more responsive EQ.
- Extended PA possibilities with control of aux fed subs on new mono output fader.
- Channel phantom power switches and signal indicators added.
- Addition of a versatile 6x2 matrix on WZ314:4:2.
- User friendly options on aux sends and direct outputs.
- XLR lamp socket. New Syslink options.
- Slimmer build.
- Pluggable jumper links.
- Easy service construction.
- New meter moulding design.
- Extra feet on connector pod.
- Universal rack or desk mount.
- Dual stereo channel routing modes.
- New side trims for style and portability.
- Separate internal power supply module.
- Dual redundant power supply connector added.
- Balanced channel XLR normals through TRS for mic or line level XLR.
- Pre-EQ aux option added for pre-insert, post-mute.
- New surface mount technology

Inputs

16 mic / line channels with 4 band EQ, HPF, individual phantom power, 6 auxes, mute switch, signal and peak indicator leds and 100mm smooth action fader. A configurable direct out and insert using all-metal TRS jacks are provided.

Stereo Mix with AB out

Main output controlled by 100mm faders with 12 segment 3 colour metering with insert. A-B output for additional L&R stereo output selectable pre or post L&R faders. Unique underpanel mode switch to configure A-B as a local monitor output for additional stereo monitoring.

Dedicated Mono Output

Mono fader feeds mono XLR output. Source select L+R sum or aux 6 mix for creating separate mono/C or aux fed sub mix.

6 Auxiliary Sends

6 auxiliaries: 1-2 prefade (option: link to follow pre/post switch), 3-4 switchable pre/post fade (option: permanently prefade) and 5 and 6 post fade (option to follow pre/post switch). Internal option to configure stereo channel L signal to odd auxes and R signal to even auxes. Aux masters are rotary controls with TRS outputs. The aux busses can be monitored in mono or related stereo pairs.



4 Band EQ plus HPF

Mono channels have separate controls for sweep and cut/boost on mid bands. HPF @ 100Hz is switchable.

2 Stereo Returns

[TRS] line inputs, routed via level controls to L&R mix. ST1 can feed aux 1-4. Note: the internal FX returns to ST1. The ST1 input allows external FX to be mixed in.

On-board Digital FX

32 FX programs with external midi editing / control. Can be configured in single mode (16 programs fed from aux 5) or Dual mode (8 programs fed from aux 5 plus another 8 programs fed from aux 6). FX are returned via ST1 to the mix, aux 1-4. The effects can be muted using a footswitch. WZ FX editor software is available from the website.

Engineer's Toolbox

Headphone output and local monitor possible, with separate level controls. Red led indicator when PFL on input channels is selected. PFL signal overrides the selected monitor source and L&R metering. A-B output can be configured as local stereo monitor.



PSU

High performance internal switched-mode power supply. Universal mains input voltage.

Configuration Options

Internal links to configure: Pre fade aux sends as pre EQ. Isolate pre-fade aux from channel on. Pre-fade direct out. EXT input -10dBV / +4dBu. Disable phantom power on selected channels.

Connections

INPUTS

Mono ch	XLR	balanced, pin2 hot	Sensitivity -60 to +10	
	TRS	balanced, tip hot	Sensitivity -60 to +10	
pad out (MIC)			2k ohm	-60 to -20dBu
pad in			>10k ohm	-20dB
Max Input Level			+30dBu	
XLR phantom power			+48v, on/off	
Stereo ch ST1,3 TRS jack		unbalanced, tip hot	>10k ohm	-16 to + 20dBu
Stereo ch ST4,4 TRS jack		balanced, tip hot	>10k ohm	-16 to + 20dBu

INSERTS

Ch 1-16	TRS jack	unbalanced, tip send, ring return	<75 ohm, >10k ohm	0dBu
L-R	TRS jack	unbalanced, tip send, ring return	<75 ohm, >10k ohm	-2dBu

OUTPUTS

Direct, ch 1-16	TRS jack	impedance balanced, tip hot	<75 ohm	0dBu, +21dBu max
Auxes 1-6	TRS jack	impedance balanced, tip hot	<75 ohm	-2dBu, +21dBu max
A-B	TRS jack	impedance balanced, tip hot	<75 ohm	-2dBu, +26dBu max
L-R	XLR	balanced, pin 2 hot	<75 ohm	+4dBu, +26dBu max
Headphones	TRS jack	tip L, ring R	30 to 600 ohm headphones recommended	
Lamp	4-pin XLR		max 12v, 5W lamp	

Mechanical Specs

	Width	Height	Depth	Weight
Desktop	507mm / 20"	194mm / 7.7"	530mm / 20.9"	10kg / 22lb
Rack mount	483mm / 19"	497mm / 19.6"	193mm / 7.6"	10kg / 22lb

Technical Specs

Maximum output level

XLR +26dBu into 600 ohm max load

All other outputs +21dBu into 2k ohm max load

Internal headroom

Mix to output +23dB

Channels +21dB

Meters

3 colour LED, quasi peak response

0VU = +4dBu at XLR output

Master meters - 12 segment -30 to +16dB

Channel meters - 2 segment -12, +16 dB (5dB before clip)

Frequency response

20Hz to 50kHz +/-0.5dB

Total harmonic distortion measured at +10dBu 1kHz

Channel to mix out < 0.004%

Crosstalk measured at 1kHz

Channel fader down > -90dB

Channel mute > -100dB

Inter channel > 90dB

Noise measured rms 22Hz to 22kHz

Mic EIN referred to 150 ohm source -128dB

L-R residual output noise < -95dBu (-99dB S/N)

L-R faders unity mix noise < -83dBu (-87dB S/N)

Channel HPF

12dB/octave below 80Hz

Channel EQ

HF Shelving, +/-15dB, 12kHz

HM Shelving, +/-15dB, 500Hz to 15kHz, Q=1.8

LF Shelving, +/-15dB, 35Hz th 250Hz, Q=1.8

LF Shelving, +/-15dB, 80Hz

Mains power Internal unit

AC mains input 100 to 240V AC @ 50/60Hz

Power Consumption 35W max

Mains fuse rating

220-240V AC use T630mA 20mm