

## WZ<sup>3</sup>16:2 Architects Specification

The mixer shall be a rack-mountable 16 channel mixer. Key features will include: 16 mono input channels with 6 aux sends and 4 bands of equalisation; internal dual stereo effects processor with MIDI interface; smooth travel 100mm faders; dedicated mono output fader capable of controlling aux-fed subs; system expandability; rotating connector panel for desktop, rack or flight-case mounting.

External audio connections will be provided on metal-bodied jacks or Neutrik XLRs with gold-plated contacts. Rotary audio controls will be individually secured to the front panel using threaded nuts and all faders shall be 100mm with smooth travel and dustcover. Internal configuration jumpers shall be plug on, requiring no soldering. Console power will be supplied by an internal switched mode power supply, with provision for simultaneous connection to a backup external power supply. The chassis shall include a 4-pin XLR connector for a gooseneck lamp.

Each mono input shall feature balanced mic and line connections using an XLR connector normalised through a stereo ¼" jack socket. A line/pad switch shall select between the two connections and provide a 20dB pad for the XLR input if the jack socket is unused. Input gain shall be continuously variable in the range +10dB to +60dB (mic) and -10dB to +40dB (line/padded mic). An 80Hz, 12dB/octave filter with in/out switching shall be provided pre-insert. There shall be a pre-EQ, pre-mute TRS ¼" insert point. A 4-band parametric EQ shall be provided. Shelving HF and LF controls will be provided at 12kHz and 80Hz respectively. Two sweepable mid-range controls shall be provided, each with a Q of 1.8. Frequency sweeps will be in the range 500Hz to 15kHz (HM) and 35Hz to 1kHz (LM). All four bands shall provide cut/boost in the range +/- 15dB using centre-detented rotary potentiometers. A direct output shall be provided on an impedance-balanced ¼" jack socket, sourced pre-fade by default and selectable as post-fade using internal jumpers. Channels shall feature 6 auxiliary sends on individual rotary controls, each having a maximum additional boost of +6dB. Auxes 1-2 are sourced pre-fade, aux sends 3-4 shall be switchable pre/post fade as a pair and aux sends 5-6 are sourced post fade. Internal jumpers shall be provided to enable auxes 1-2, 5 and 6 to be sourced subject to the pre/post switch. Pre-fade aux sends may be selected as post EQ on each channel using internal jumpers. A channel pre-fade listen (PFL) switch shall be provided, which half-lights the adjacent peak LED when activated. A 2-LED pre-fade signal level meter on each channel shall be provided - the first 'sig' LED shall illuminate when channel pre-fade signal exceeds -12dBu. The second 'peak' LED shall illuminate when signal is within 5dB of clipping. A rotary channel Pan control with centre detent shall adjust signal routing to Left/Right mix. A 100mm linear fader shall provide level setting of all post-fade sends, facilitating a maximum additional boost of +10dB. An illuminated Mute switch shall be provided.

An integral stereo effects processor shall be included, which can be switched off if not required. By default the processor shall be fed from the aux 5 mix with 16 presets available. A recessed 'dual FX' mode switch shall be provided to enable auxes 5 and 6 to each feed an independent effects processing engine, each having 8 presets available. Internal effect presets and parameters shall be selectable and editable via a MIDI IN connection. Effects processor output shall be provided with a facility for sending in mono to aux mixes 1-4 using individual rotary controls, each with +6dB maximum boost. Internal jumpers shall enable odd-numbered auxes to be fed from the left effects channel and even-numbered auxes to be fed from the right effects channel, for auxes 1-4 only. Effects output shall be returned using stereo return channel 1, mixing with any signals presented at the stereo return input connectors. The stereo return connections for external devices shall be on ¼" jack sockets with L normalised through R for connection of mono sources. A rotary control shall be provided to feed the stereo return to the main LR mix, with +6dB maximum boost. An illuminated mute switch shall be provided to kill signal from this section to the LR mix and auxes. A dedicated ¼" jack connector shall be

provided for a mute footswitch, which duplicates the function of the on-panel mute switch, including illumination of the mute LED.

Aux masters 1-6 shall each feature a rotary level control with +6dB maximum gain. Aux 5-6 level controls shall not affect levels feeding the internal effects processor. Aux outputs shall be on ¼" impedance-balanced jack sockets with optional electronic balancing available.

Main mix LR and M outputs shall be controlled using individual 100mm faders, each providing +10dB maximum boost. Outputs shall be presented on balanced XLR connections and LR shall feature TRS inserts on ¼" jacks. The M fader can be sourced from a mono sum of the LR mix or the aux 6 mix buss, determined by a recessed mode switch.

A comprehensive monitor section shall be provided with a rotary level control and ¼" jack headphone socket. Source selection shall default to post-fade LR mix. A bank of switches shall enable alternative sources to be selected. Switches shall be arranged in a hierarchy with the top switch taking precedence. Sources, in increasing order of priority, shall be provided to select: post-fade M source; ST6; ST5; Aux6; Aux5; Aux4; Aux3; Aux2; Aux1. Selecting Aux 1-2 together, or 3-4 or 5-6 shall monitor the pair in stereo with the odd aux on the left and the even on the right. A pair of 12-LED signal meters shall provide visual indication of monitor source levels. An LED shall indicate when PFL is active. Monitor source shall be over-ridden automatically by any PFL signal.

A secondary stereo output shall be provided which can be sourced from the post fade LR mix (selectable as pre-fade using internal jumpers) or the monitor mix, including PFL interruptions, using a recessed mode switch.

A second stereo return shall be provided on a pair of ¼" jack sockets. The L jack shall be normalled through the R jack to enable connection of mono sources. This stereo input shall feature a rotary volume control and illuminated switch for routing direct to the LR mix.

The Mixing Console shall be constructed using an all-steel chassis with compact footprint, designed for easy rack mounting or table-top operation. Protective side trims shall be fitted which shall be easily removed for flight-cased or rack-mounted operation.

An optional balanced output connection system shall be provided for slave-connection to mixers from the same manufacturer which feature equivalent input connections.

The console shall weigh 10kg (22lbs) and shall have dimensions (w x h x d) of 483mm(19") x 194mm(8") x 530mm(21") when rack-mounted, or 507mm(20") x 195mm(8") x 135mm(5") when desk-mounted and side trims fitted.

The mixing console shall be the Allen & Heath WZ<sup>3</sup>16:2.