Allen & Heath ZED R16 | £1,763

This mixer could be the beating heart of your studio. ***Trevor Curwen*** runs his stethoscope over Allen & Heath's new analogue and digital mix hybrid

WHAT IS IT?

Mixing desk with a built-in MIDI control surface and a soundcard for FireWire and ADAT audio transfer

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HIGHLIGHTS

1 Great sounding mic pre and EQ

2 Effortless digital audio interfacing

3 Plenty of MIDI control for your DAW

Allen & Heath have been turning out plenty of mixers for live sound and for DJs but they say that the ZED R16 is their first true recording mixer for over 10 years. That's not to say that the R16 is not suitable for live use as it also admirably suits that purpose, but the versatility built in should see it sitting proudly as the nerve-centre in home, project and even small commercial studios.

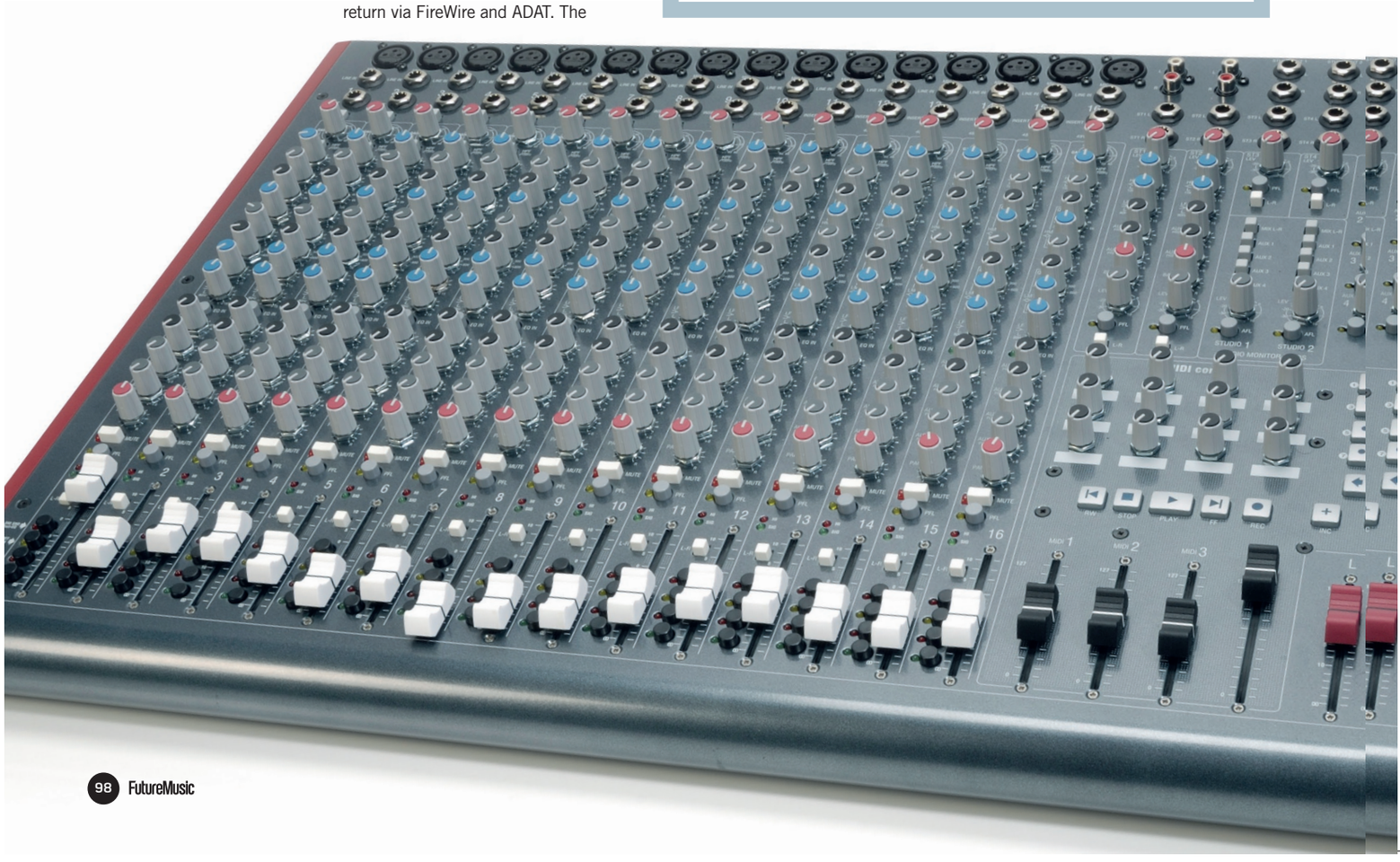
Essentially, what you get is an analogue mixer with 16 fully-equipped input channels that can all be routed directly to the main left/right buss but also with multi-channel audio send and return via FireWire and ADAT. The internal soundcard has 18 FireWire inputs and 18 outputs (16 channels and the L/R buss) plus ADAT I/O for the 16 channels. Where a conventional analogue mixer would have more routing buttons sending the signal to a numbered group buss, the ZED R16 automatically digitally outputs the signal from each channel to the same-numbered channel on the FireWire buss or ADAT output.

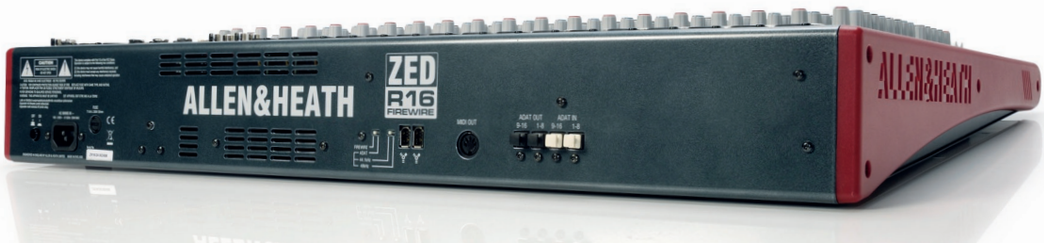
This signal is taken directly from the mic preamp but if you want to take advantage of the ZED R16's channel EQ, the digital signal can instead be sent post-EQ by a routing button next to the main fader. Similarly, another pair of buttons take care of routing back the associated digital output from the computer or ADAT to the ZED R16 channel either after the EQ or just after the preamp to take advantage of the channel's insert point and EQ.

What all this means is that the ZED R16 can be assigned to multiple roles. The first scenario sees the R16 in use recording audio pre-EQ from an analogue mix – basically the mixer can

MIDI Control

The R16 has a whole section of dedicated user-assignable MIDI controllers conveniently located in an area between the input channels and the master faders. MIDI data is sent on the FireWire buss, but there is also a MIDI Out socket to send messages to equipment other than the computer. What you get are a standard set of transport controls for a DAW using the MMC protocol plus 12 rotary controls, four faders and 12 switches. In addition to the control section, each input channel has a 'Fader = MIDI' switch that bypasses the audio at unity gain and allows the 60mm channel fader to output a continuous controller message.





be used for a live gig with the EQ being utilised for the live mix outputted from the L/R buss while a pristine signal from each channel is recorded digitally. Alternatively in a studio situation the digital signal can be recorded post EQ with the analogue signal through the faders and L/R buss being monitored if desired. If it is preferred to monitor the signal actually being recorded on the computer, this could be sent back from computer to the faders.

Another scenario sees the R16 being used as an analogue mixer but able to utilise a computer as an outboard rack by using the FireWire send and returns on each channel to route the signal through, say, compressor or gate plug-ins. A similar but reversed situation would see the ZED R16's analogue mixing facilities applied to the tracks recorded on computer with the ZED R16 working as a summing mixer.

> A&H have done the utmost to create a product that appeals across the board

For those who prefer to mix 'in the box', the R16 could still be utilised for its MIDI control facilities (see the MIDI Control box) – with each channel fader being assigned with a button push to control DAW parameters.

A to ZED

Physically, the ZED R16 is about as solidly built as these things can be, with great attention to the small details and a work surface that is laid out with everything just where you'd expect. Allen & Heath say that the ZED R16 is equipped with the best performing preamps in their entire range and, it has to be said that the sound quality is quite superb with plenty of clarity. If you wish to keep the sound 'as is', the EQ section is switchable but there is plenty of scope for both broad and intricate tweaking with the very comprehensive EQ – two swept, fully-parametric mids, plus high and low-shelving EQ on each channel.

Four aux sends on each channel offer plenty of possibilities for various ways of working. The default setting of two pre-fade and two post-fade auxes allows for two foldback sends plus a couple of effects sends – a situation that many users will be very comfortable with. However, there is the possibility of changing the pre and post configuration of the auxes by putting link wires on the circuit boards – not as straightforward as having the switches on the panel but do-able if you need it.

Besides the 16 mono channels you also get four stereo channels. These offer no digital input or output but can be put to use as effects returns or perhaps to connect hardware synths.

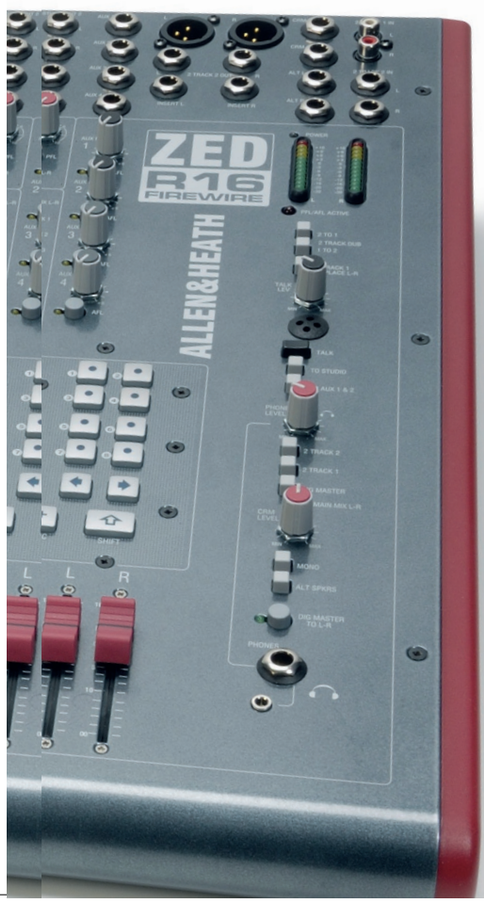
A centre section offers a fairly comprehensive set of facilities for the small studio. There is a headphone socket plus its controls, provision for connecting and switching between two sets of monitors plus two sends for studio foldback with routing options for all four auxes and the L/R mix. A built-in condenser mic provides talkback and there are two separate two-track connections.

The drivers for the ZED R16 are downloadable from the A&H website and easily installed. Connecting the mixer to computer via FireWire makes all the digital ins and outs instantly available to your recording software allowing ultra-smooth transfer of audio back-and-forth and opening up a real flexibility in working methods that is likely to endear the ZED R16 to many different users.

Verdict

Versatility is the name of the game here – Allen & Heath have done the utmost to create a product that appeals to everyone across the board.

The great sounding channels, digital audio I/O, DAW transport control plus the monitoring and talkback facilities all combine in a compact piece of gear that could be the essential central hub in your studio. **FM**



FutureMusic VERDICT

BUILD
VALUE
EASE OF USE
VERSATILITY
RESULTS

A very versatile mixer that would make the perfect centrepiece in a project studio

SPECS

A/D & D/A Conversion:
24-bit

Sampling frequency:
44.1, 48, 88.2, 96kHz

Connections:
Mono input channels:
16 x XLR balanced mic inputs
16 x 1/4" jack balanced line input
16 x 1/4" TRS jack insert points.
Stereo input channels:
2 x RCA phono L&R inputs, 4 x 1/4" jack L&R inputs. 2 x 1/4" jack studio outputs L&R, 4 x 1/4" jack aux output, XLR stereo output L&R, 1/4" TRS jack mix insert L&R, 1/4" jack 2-track out L&R, 1/4" jack 2-track in L&R, RCA phono 2-track in L&R, 2 x 1/4" jack monitor outputs L&R, 1/4" stereo headphone socket, 2 x FireWire sockets, ADAT 2 x optical input sockets, 2 x ADAT optical output sockets, MIDI Out

Extras: Sonar LE software

Dimensions:
704 x 470 x 102mm

Weight:
13kg

ALTERNATIVES

Yamaha n12
£945
Combines a 12 channel mixer, 16x16 FireWire I/O and DAW control
yamaha-europe.com

M-Audio NRV10
£449
A 10 x 10 FireWire digital audio interface with an 8 x 2 analogue mixer
maudio.co.uk

Presonus StudioLive 16.4.2
£TBA
A sixteen-channel digital mixer with built-in 22x18 FireWire recording and playback engine
presonus.com