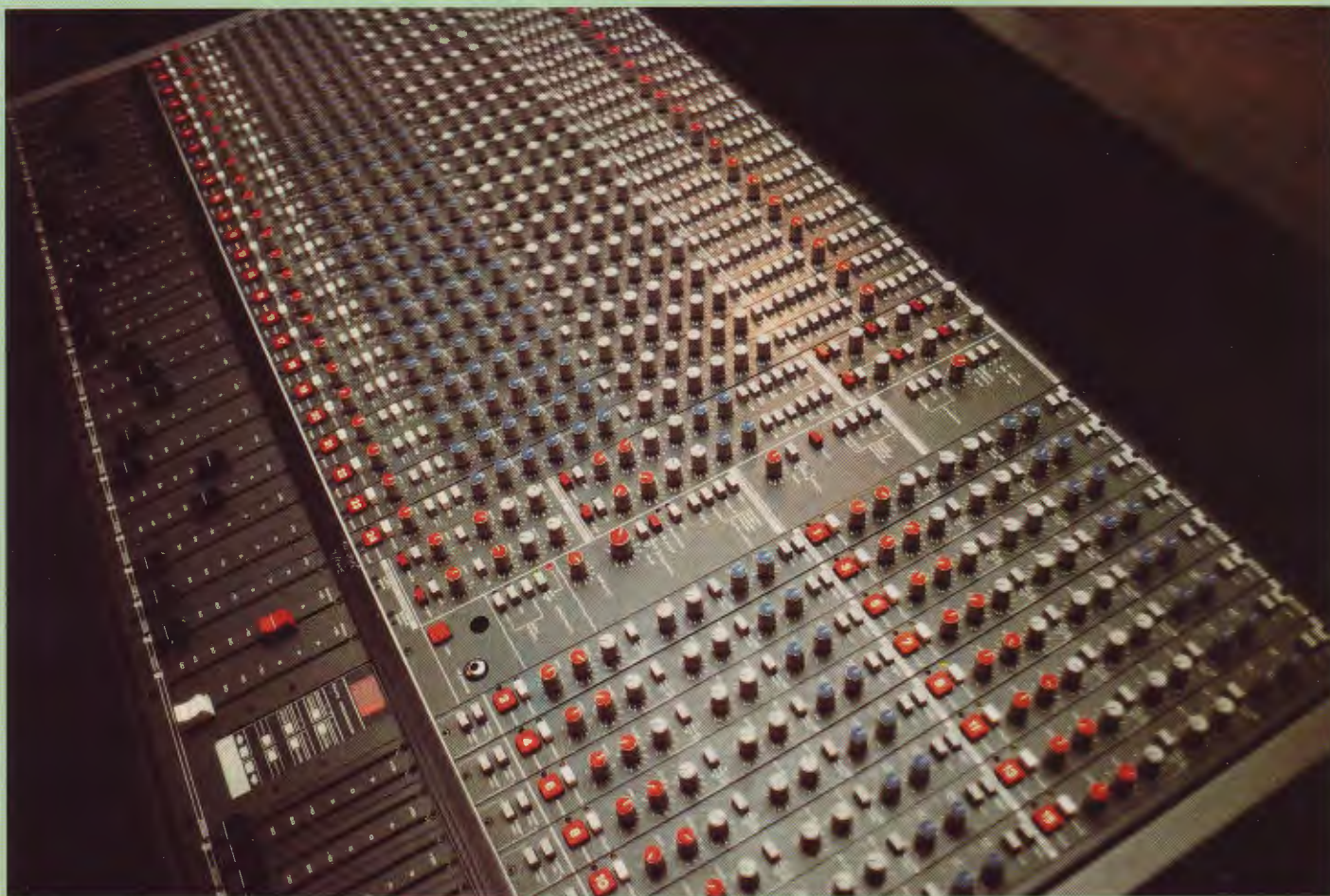


# Allen and Heath Saber Mixer



**This split format console with MIDI muting, fader reverse and EQ on the monitors gives you a total of 56 inputs and four dedicated effects returns for mix-down.**

Everyone involved in home recording is probably familiar with the name Allen and Heath, but in the last year or so they seem to have undergone something of a transformation. The Saber is a console that typifies their change in direction.

Firstly, it's a console which has been designed to attract the attention of both the lower end of the pro market and the upper end of the semi-pro market. This, I would imagine, is something of a challenge for the designers who have had to include features that will be of a suitably high standard for the engineers, pop stars, and producers who will install them in home or pre-production suites, but also make the layout understandable for those upgrading from smaller desks like the Seck 18:8:2 and suchlike. Secondly, the needs of the equipment buying public dictate that we should have more channels available for mix-down because of the increasing use of sequencer-based recording systems (no escape from MIDI). Not only is there a

need to run drum machines and synthesisers live on the mix to save analogue tracks for vocals and guitars but there are all those stereo effects returns to take into consideration!

## First Impressions

The Saber certainly looks far more appealing than the old mud and fawn of the System 8 and dark chocolate of the Syncon B! It does, nonetheless, lend itself to comparisons with the SSL when it comes to the colour scheme, but then so do some other consoles I could mention. With a grey eggshell stove enamel finish on its steel frame, padded arm rest and solid wood trims, the Saber looks up-market and thoroughly professional – an important selling point for both the prospective purchaser and studio client. The only area of dubious artistic design is the meter bridge which, while undoubtedly functional, spoils the otherwise sleek lines of

the console with its unimaginative, boxy appearance.

Some recent customers apparently got in touch with AHB to suggest that they change the colour coding of the sweep knobs on the EQ section (all the same shade of blue on the review model) because it was difficult to tell the frequency controls from the cut/boost controls and I'm pleased to be able to report that they will supply different colour-coded knobs if required.

Immediately noticeable from the ergonomics point of view is the fact that this is a split console which makes it easier to understand, but if this gives you visions of some monster sized desk, think again. The console under review is a similar size to one of its in-line rivals but, even so, it doesn't seem to suffer from a layout which is in any way cramped. Of course that's if you get the standard 24:16:2 without the patchbay – it's a little larger with that fitted!

The Sigma is modular which means expansion without tears plus a variety of formats that include a choice of VU meters instead of a bar-graph meter bridge, or an eight-group/16-monitor version. I believe you can even get a 24-monitor version if

you need it. Remembering the way the VU lights used to go down on the old A&H desks, I'd go for the bar-graphs but maybe they've improved on the design here (the review desk didn't have VU meters so I can't really say).

In its largest form, up to 56 inputs and four returns are available for mix-down, and if that seems like a lot, you'd be surprised how many get gobbled up when you're running a lot of sequenced things during the mix or bringing back a lot of stereo returns.

## Input Channel

You get the usual selection of Mic, Line or Tape switches with an individual +48V phantom power switch for each channel, phase reversal and a 20dB Mic pad. The tape return is wired to the balanced professional standard of +4dBu but is switchable to -8dBu for an unbalanced system like the Fostex E-16. This is achieved by taking the monitor section modules out (with the power off) and carefully moving four links for each channel. It's really quite simple, even for a novice, and adequately explained in the manual.

One thing you will find if you use an E-16 with the Saber is that the desk having a .775V ref level (dBu) and the Fostex having a 1V ref level (dBv) means you end up with the gain controls a little higher than normal on the tape returns, typically about six or seven on a scale of ten but this doesn't cause any apparent problem with S/N ratio.

Mic inputs and tape returns are XLRs, and for the E-16 this connection involves bridging the earth (pin 1) to pin 3 (cold). The Line inputs are quarter-inch balanced jacks. Direct Outs are also found on the rear panel of the desk and can prove very

useful for patching in stereo processing or triggering samplers. In practice the only real criticism I have of the Gain stage is that very little seems to happen until the knob is turned past the halfway mark (this is also true of its big brother, the Sigma).

## Auxiliaries

Next in line beneath the Gain pot and Multitrack assign buttons are the six auxiliary sends. Sends one and two are usually configured as stereo foldback or two individual mono mixes and therefore have their own pre/post fade select. Any auxiliary, however, can be changed to pre-fader operation by internal links.

On the monitor section of the desk you expect to have auxiliary sends including foldback and the Saber goes along with convention in this area. Both foldbacks are there plus auxiliary three for effects, but there's more. If you're only using send one for foldback, then you can configure send two to become send three and send three to become send four merely by pushing a button. Unorthodox but useful if you've got some tasty effects already allocated to those auxiliary sends.

As for the master sends, I was rather put out to discover that the six mute buttons accompanying the Aux master output levels and pfl switches were non-programmable. I tend to use some aux sends with delay lines in the mix to catch certain phrases or words so that only they get repeated and not the words before or after the ones I wanted. OK, so the auxiliary returns have programmable mutes, but as far as I'm concerned, that's the wrong place to put them and the effect of muting at this point is quite different. And what about the times when you're sending more than one sound to the same processor and you want continuous effect



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► on one signal but occasional treatment on another? If the aux output mutes were programmable too (or instead), the process could be automated by recording the information into a MIDI sequencer synchronised to tape and you wouldn't have to worry about doing it manually on each pass through the mix.

On a better note there are four dedicated auxiliary returns with pan, level, pfl, both foldback sends and the aforementioned programmable muting. Returns one and two also have the benefit of tape assign and basic EQ (each have a HF and LF control shelving at 10kHz and 100Hz respectively).

## Channel and Monitor EQ

I initially thought that I would be disappointed by the lack of parametric EQ on the Saber but I was pleasantly surprised. The EQ comprises a shelving HF switchable between 6kHz and 12kHz (like the system 8), two sweep mids, a shelving LF switchable between 70 and 140Hz, and a low cut filter at 80Hz. I was impressed by the positive action, modern sound and clear definition of the controls, especially the mids. A cut/boost of plus or minus 12dB is available on all the EQ sections and the frequency range covered by the upper mid is 1kHz-10kHz, while the lower mid overlaps this slightly with a 200Hz-2kHz range. The only real cause for complaint here is that the lower mid EQ doesn't go anything like low enough. You quite often need to do selective EQ'ing between 50Hz and 20Hz so why not give the lower mid a lower limit of, say, 50Hz as is offered by desks like the Tascam M600?

The EQ on the monitor section is basic but good with a standard shelving HF at 10kHz corner frequency, while the LF is at 100Hz. In use you will find that this welcome monitor EQ is one of the Saber's stronger advantages over its main rivals, though, again, the Tascam M600 has fully EQ'able monitors.

## Master Section

One unfamiliar feature, in name anyway, was 'Check'. This facility is actually a choice between pfl and Solo in Place which both isolate a channel (or channels) so you can work on a particular sound. The first you use for setting up your input gain as it interrupts your monitor loudspeaker and meters while the second mutes inputs which are not solo'd. There are further differences in use. One such is that the pfl volume (as its name 'pre-fade-listen' might imply) is not relative to the fader level you have for the channel you have selected whereas the solo volume is. This means that you'll be using the solo more when you want to cross-reference, say, a bass drum against a bass guitar in the mix. Also, because the solo does not mute auxiliary sends and returns, you can work on a sound like a snare drum relative to its reverb and also leave the performer's

foldback unaffected. If this is not what you want then you simply pfl the snare instead.

Further flexibility is afforded by the link switch between the main console and the monitor section for the solo facility and the ability to solo the group monitors only.

Fader reversal is one important area normally found only on more expensive desks. Full fader reversal is available on the monitor section which means that when it comes to the mix, you won't have to fiddle with small pots to set levels. Anything which is coming up via the line inputs or tape returns (configured as suits your needs) can be assigned to the faders which had previously been used for outputting signal to tape. This is far more ergonomically sound when you're in the middle of a complicated mix and you need to get to a level control fast. Given that, my only criticism is that the faders themselves are rather too close together for you to distinguish one channel from another quickly. Simple numbering would do the trick and I suggest that if A&H don't change their minds and include this, then you go and get some sticky labels and do it yourself because it really is a pain. It would also help if alternate group faders had light and dark knobs because, in a badly lit studio, they all seem to merge into one.

Using fader reverse for recording to tape can also have other benefits (as was pointed out to me by some helpful gentleman from a Reading studio whose name I never got - thanks!). If you initiate fader reverse, and turn all your volume pots on the monitor section to full, you can then control your level to tape from the channel fader after you've selected a tape assign (routing) button. This avoids the problem of people leaning on the desk to your right and accidentally altering your group output faders (all set to zero in this case). Also, the producer can put his notes on that section of the desk without getting in the way of the engineer, because once



set up it need never be touched until mix-down. Off-tape listening would be through the main channels on the console.

Also in the master section of the console are: Recording Monitor Modules and Mute processor; Master control for the above; effects sends and returns; master output LED peak lights; stereo and mono faders (100mm Alps with +10dB boost); the oscillator (100Hz, 1kHz and 10kHz); talkback and integral talkback mic; studio and control room monitor sources (including two tape returns, plus Dim and a Main/Alt speaker switch. All familiar stuff you'd expect to find on any comprehensive

console, though of more immediate interest at this point is the MIDI muting system.

## MIDI Muting

The muting system has an on-board memory of 32 patches so that you can store mute configurations for different points in the song and step through them manually on the mix. Or, with the aid of an external sequencer synchronised to tape, you can record these events (in the form of controller information) from the desk in real time either by stepping through patch changes or selecting the mute buttons on individual channels. I was impressed with the click-free nature of the muting and the fact that drop-ins to correct mistakes are relatively simple. Also, because you have a recorded version of the mix mutes, they can be recalled should a re-mix be necessary. Finally, if you have used the internal memory for scene-changing, it is possible to dump all this information via System Exclusive to a sequencer too. Very versatile and reasonably simple to operate!

## Summing Up

In terms of performance, the Saber is all that you'd expect from a desk in the mid-price range with reasonably low noise mic amps, low crosstalk and a fairly comprehensive, musical sounding equaliser. The controls have a decent feel to them and the switches operate in a reassuring manner with no untoward clicks. And the split format means that most engineers will be able to familiarise themselves with it in just a few minutes. The EQ'able monitors can be used as extra line ins on re-mix which is of great benefit to sequencer users who never seem to have enough inputs.

Of course no desk will be perfect for everyone and this one, like all the others, has its annoying shortcomings. The limited lower range of the lower mid control is rather a silly fault that could so easily have been corrected at the design stage as could the lack of automatic mutes on the effect sends. The close spacing of the group faders doesn't make life any easier either, but then there's always a compromise between ergonomics and available space. What AHB have succeeded in doing is coming up with a visually attractive, easy-to-use traditional split console with programmable muting which fills, if not exactly a gap, then at least a thin area in the mid-priced console market. Definitely a desk to look at if you're in the market for an upgrade.

*The 24:16:16 mixer with bar-graph mixers costs around £6,000 depending on specifications. Details: AHB Ltd, 69 Ship Street, Brighton BN1 1AE. Tel: (0273) 23346.*

*Thanks to Trevor at House on the Hill Studio in Bath and Graham of Audilux for technical assistance.*

**Text: Paul White and John Harris**

**Photography: Paul White**