



✦ Soundcraft's Spirit E12 is one of a new range of affordable analogue desks

# SOUNDSCRAFT SPIRIT E12

✦ SOUNDSCRAFT HAVE LAUNCHED A NEW RANGE OF COMPACT ANALOGUE MIXERS SO TREVOR CURWEN DECIDES IF THE SPIRIT Es ARE GOOD...

£347

## INFO

**Soundcraft E12**  
Analogue mixing desk

**Price**  
£347

**Other models**  
E6 (6 mono ins): £253;  
E8 (8 mono ins): £276;  
ES (10 stereo ins, 4  
mono ins): £382

**Channels**  
12 mono, two stereo

*continued opposite*

WHEREAS A MIXING desk was once an essential item in any recording situation (and pretty much the nerve centre or heart of the whole studio), it's now quite possible for those with computer-based recording systems to do away with a mixing desk altogether, as long as they have the necessary soundcard/audio interface connections to the outside world, that is.

This minimalist set-up can work OK, but adding a small desktop mixer to the system can greatly increase the flexibility. Not only in terms of interfacing both the inputs and outputs of the

soundcard with hardware synths and effects units, but also affords the opportunity to record multiple simultaneous live sound sources.

Among home recordists Soundcraft's Spirit series have always been one of the most popular choices of compact mixing desks, and now the company has launched a new range of four analogue desks, the E series. And their *raison d'être* seems to be to provide high quality features in a package that is extremely easy to use. On test here is the E12 which sports 12 mono channels and two stereo channels,

(essentially making the E12 a 16-channel mixer), feeding into a stereo buss. This is the largest of three similar desks, its smaller compatriots, the E6 and E8, being equipped with less mono channels (six and eight respectively). There is also the ES version that sports 10 full stereo channels alongside four mono.

## Overview

The E12 is actually a fine looking piece of kit with all the sockets and controls presented on a solid metallic grey fascia with a curvaceous front that turns under to form a lip: great for grabbing

hold of and carrying the unit. The sides of the mixer are protected by plastic end cheeks that are easily removable, should you wish to fit rackmount ears to fix the unit into your rack.

Power is supplied by an IEC socket located underneath the machine leaving the rear panel completely clean. My only reservation about the build quality, and it's a minor one, is that the knobs attach to plastic, rather than metal splines, which would be more likely to break if handled roughly or if the mixer was dropped.

## Mono channels

The E12's mono channels each have three sockets at the top panel. First up is an XLR mic input and phantom power is universally switched on for all channels from a switch located in the desk's master section rather than from individual channel switches. Below the XLR socket is a TRS balanced jack line input suitable for connecting keyboards, drum machines, guitar amp simulators or tape/soundcard outputs.

An insert point for connecting any inline processors (such as compressors, outboard EQ or gates) comes last in line. The send of this can be used as a direct pre-fade, pre-EQ output by using a jack lead with ring and tip shorted together so the signal path is just tapped and not interrupted. A single gain knob at the head of the channel controls the gain for both input sockets.

The EQ section is a three-band, four-knob affair with high and low shelving and swept mids. The treble knob can apply a maximum of 15dB cut or boost to frequencies over 12kHz, while at the other extreme the bass knob can apply the same amount of cut and boost below 80Hz. There's 15dB of cut or boost available in the mid range while the swept mid pot gives access to a frequency range of 140Hz to 3kHz.

The channel strip knob array is completed by the panpot and auxiliary sends 1 and 2, each send globally switchable to pre or post fader operation by a pair of master section switches. Below this are a Solo button (which sends a pre-fade signal to the outputs), a Mute button, peak indicators and the 100mm channel fader.

## Stereo channels

The two stereo input channels are ideal for bringing in the returns from a pair of stereo effects processors connected to the aux outputs or can be equally put to use to bring in the outputs of

any stereo gear that outputs a line level signal. Input to each stereo channel, controlled by a single gain pot, is via a pair of balanced jack sockets (left and right). Mono sources can be connected by using the left socket only.

In common with the mono channels, both stereo channels have the two aux sends and the same high and low EQ, but the mid-range EQ is absent. As the channel is stereo the pan pot becomes a balance control. Solo and Mute buttons and the fader are the same as for the mono channels.

## Master section

All the output sockets are located at the top of the master section. The console's main output is via a pair of balanced XLR sockets and there is a pair of master insert jacks for connecting any outboard processors to be used across the whole mix.

The left and right monitor outputs are on balanced jacks and there's also a stereo jack headphone output, and each has its own dedicated rotary knob for controlling the output volume.

The aux outputs 1 and 2 also use balanced jack sockets and there is a pair of buttons, one for each aux, to switch between pre- and post-fade operation. A set of RCA phono sockets has also been included for connecting a stereo master recorder, the playback of which is routed by another pair of switches. The first switch sends the playback from the phono plugs to the main mix while the second switch routes the playback signal to the monitors and headphones, so overriding the default monitor and headphones feed.

Overall output level is handled by a pair of faders with a 10-segment LED bargraph meter indicating the level.

## In use

To put the E12 through its paces, I connected up a pair of new Yamaha MSP10 Studio active monitors (reviewed on p36) to the monitor output and connected the main outputs to a pair of

inputs on my soundcard to record into Logic Audio. I then connected various MIDI sound module outputs plus a couple of mics to the input channels.

The most striking thing when first using the E12 is that everything is so

## LIVE USE

**While every reader of FM undoubtedly indulges in recording, many also play live gigs and the E12 is an ideal portable mixer for this application, whether solely for taking care of the vocal mics or in a more comprehensive role with instruments miked up, connected via DI boxes or directly to the line inputs.**

**In a live scenario the main outputs would be the feed to the main PA amplifier and speakers while the aux sends/outputs could be used in pre fader mode to send a signal to the stage foldback (monitors).**

**Alternatively, especially if a little reverb or delay is required on the vocal mics, one aux send could be used for the foldback while the other could be set to post-fade and used with a suitable effects processor to supply the effects. Extra foldback could be supplied from the monitor outputs to a separate amp/speaker system although this would be the same mix as that at the main outputs.**

**A cassette, DAT or MiniDisc recorder can be connected to the phono sockets to record the gig. Between sets, in the absence of a DJ, this could be used to play a pre-recorded selection of music.**

well laid out in a logical and uncluttered way. The colour coding allows for quick identification of each knob's function and the long-throw faders make minute mix adjustments a much easier task than with the shorter faders often found on budget desks.

First impressions on the sound front are that the E12 may be budget but it's also a clean sounding desk. The mic preamps are clear and clean giving a detailed sound without any undue noise. The EQ is also pretty good for a desk in this price range. The top and bottom shelving EQ seem spot-on in their choice of frequency; indeed, the top control used in moderation adds a

## INFO (cont.)

### Connections

12 mono input channels (XLR mic input, balanced quarter-inch jack line input, quarter-inch unbalanced jack insert), two stereo input channels (balanced quarter-inch jack line inputs (L/R)), two balanced quarter-inch jack aux outputs, two balanced quarter-inch jack monitor outputs, two balanced XLR mix outputs (L/R), two unbalanced quarter-inch jack mix inserts (L/R), two RCA phono playback input (L/R), two RCA phono record output (L/R) stereo headphones

### EQ Bands

**Mono input (+/-15dB)**  
Low: 80Hz; mid (swept): 140Hz - 3kHz; high: 12kHz; Q: 1.5 (fixed)  
**Stereo input (+/-15dB)**  
Low: 80Hz; high: 12kHz

### Noise

(22Hz-22kHz measurement bandwidth)  
Mic EIN @ max gain: -128dBu  
Mix @ max, faders down: <-85dBu

### Frequency Response

20Hz - 20kHz +/-0.5dB (mic/line input to any output)

### THD + Noise

Mic gain 30dB, -30dBu input  
Mix out, fader max @ 1kHz: <0.007%

### Dimensions

528 x 452 x 95mm

### Weight

7.75kg

### Contact

Soundcraft:  
01707 665000

### Website

[www.soundcraft.com](http://www.soundcraft.com)

❖ “The E12 may be budget but it’s a clean sounding desk. The mic preamps are clear and clean giving a detailed sound without any undue noise. The EQ is also pretty good for this price range” ❖

nice sheen that works well on brightening up a vocal sound. Likewise the Bass knob is well-suited for adding a touch of extra weight to a kick drum. The mid-range EQ offers plenty of leeway for broad boosts and cuts but



The colour coding of pots and faders makes the E12 simple to use

is especially useful when it comes to taking some of the low mid flab out of sounds.

The mix of features on the E12 affords it a fair degree of flexibility in several working scenarios for both live (see the *Live use* box on p59) and recording. In any recording situation the primary role of the mixer is to allow all the sound sources to be heard alongside each other as the song is constructed, and with 12 mono input channels and the two stereo ones there's obviously a lot of scope for having several sources connected.

A typical scenario for someone working on a computer system with separate outs on a soundcard/audio interface might have, say, six soundcard outputs, six hardware synth outputs and a stereo hardware effects processor connected while keeping a couple of channels for connecting vocal mics.

The signal to be recorded can be fed from the E12 into a computer soundcard in several different ways. The first method is the most basic, involving simply balancing the sound of all the inputs which may consist of several miked up and DI'd musicians or a bunch of mics on a single drumkit, and feeding it in stereo form from the main outputs to the recorder.

For anyone using an audio interface with several separate inputs, allowing recording to separate tracks of their recorder, the E12 is not the ideal set-up

to record each input source to a separate track. Ideally you'd need a desk with several busses. There are workarounds though. There's the (already mentioned) option of feeding the inputs directly from each E12 channel by using a lead from a channel insert point, but as the feed would be pre-EQ, you couldn't take advantage of the channel EQ when recording.

Sending a single channel to the recorder is as easy as muting all the other channels and sending the remaining channel via its fader to the main outputs. Alternatively the E12 can be used to record single sources (or even two single sources) while still monitoring all the music. This can be done by connecting the aux outputs to the inputs of your soundcard and setting the sends to pre fader. The output from a single channel could then, using the aux send pot, be sent to the recorder completely independently of the channel fader, so the channel fader can be used alongside the other channel faders creating a monitor mix.

A variation on these methods could send four separate sources to four separate soundcard inputs using the aux sends on two channels and the faders (panned hard left and right) of another two channels.

### Conclusion

I have no hesitation in recommending the E12, or for that matter any of the

## MIXDOWN

Anyone using an analogue mixer like the E12 in conjunction with a computer based MIDI and audio sequencer has two main options when it comes to mixdown.

The first option, which is perhaps to use the mixer to its full potential, is where the soundcard's outputs (stereo or separate) can be connected to the mixer alongside the outputs of all your sequenced hardware synths. Hardware effects units can be connected via the aux sends with their outputs brought back into the desk through the stereo inputs and the mix set up physically on the faders. The resulting stereo analogue master mix can then be recorded either to a separate stereo recorder or back into the computer as a new stereo audio file.

When it comes to mixing, however, many users of computer recording systems like to take advantage of plug-ins and the sequencer's automation and mix internally. In this case they would want to record all the outputs of their physical synths into the computer, so the analogue mixer would be used to monitor all the sound sources while the track was being put together and used to route those sounds into the computer to be recorded, but not used to physically set up the final mix. Oh, the agony of choice!

## ALTERNATIVELY

### Mackie 1402 VLZ Pro (£502, 85%, FM92)

Mackie's nearest equivalent to the E series, it's a 14-input (six mono, four stereo) desk with three-band EQ and a 75Hz high-pass filter, two aux sends, two stereo aux returns and two-track input/output.

[www.mackie.com](http://www.mackie.com)

### Behringer MX2004A (£212)

A compact and low cost mixer featuring eight mono and four stereo input channels, two-track input/output plus two aux sends and two stereo returns.

[www.behringer.com](http://www.behringer.com)

### Behringer UB1832 FX-Pro (£242, 7/10/9/7/6, FM131)

If you're on a tight budget and want an analogue desk with built in digital effects this got an FM Value award.

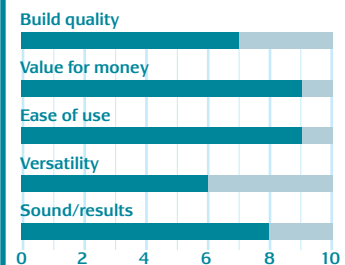
[www.behringer.com](http://www.behringer.com)

new E-series desks if the number of channels they provide suits your requirements better. The user with more sampler and synth outputs who is less likely to use mic inputs would, for example, perhaps be better off with the ES model.

The E12 sounds good, has a logical balance of features with nothing superfluous, is simple to use with everything clearly laid out and accessible. On top of that, it's very reasonably priced. **FM**

## VERDICT

### Spirit E12



A compact, low-cost yet well-specified mixing desk that's equally suited to both live and recording applications.