

Studer V-Eight

*Modular 20 bit Digital
Recording System*



Studer V-Eight: Modular 8 channel recorder designed for the most demanding applications of true professionals

The launch in 1991 of the ADAT format sent shock waves throughout the recording industry. ADAT made it possible for the budget conscious to achieve good recordings onto standard S-VHS cassettes. With over 100,000 units sold ADAT has gone on to be the most successful recording format ever. Studer has been under pressure from within the recording industry to launch its own ADAT recorders but felt that the technology behind ADAT was not sufficiently developed to offer the quality expected from a professional recorder carrying the Studer logo.

A few years ago Studer were approached by Alesis and offered the opportunity to be directly involved with the development of a new recording standard, «ADAT Type II». This new format has been developed at the cutting edge of technology and has been vigorously tested by Studer technicians who believe that it will surpass the expectations of the Studer customer. The result of this cooperation between Studer and Alesis is the V-Eight 20 bit digital multitrack recorder. ■

Studer V-Eight

ADAT Type II at its finest.

The Studer V-Eight will redefine your opinion of the ADAT format. The full knowledge and resources of Studer have been utilised to develop a recorder that re-writes the rules. The system has been comprehensively re-designed to maximise the potential of the S-VHS cassette for the professional studio environment. Quite simply the V-Eight represents the finest ADAT recorder on the market. ■



V-Eight Quick Reference

- 8 track, 20 bit ADAT type II recorder
- 24 bit linear A/D converters, 128x oversampling
- 20 bit linear D/A converters
- Audio Inputs: Eight +4dBu balanced XLR jacks +4dBu balanced 56pin I/O connector; ADAT Optical Digital Input
- Audio Outputs: Eight +4dBu balanced XLR jacks +4dBu balanced 56pin I/O connector; ADAT Optical Digital Output
- Synchronisation: ADAT Synchronisation input and output; Time code input and output; RS-422 9-pin port; MIDI in and out; Wordclock in and output; Video Reference in and thru
- Direct Drive transport
- Jog/Shuttle wheel
- Analogue auxiliary track
- Separate SMPTE/EBU time code track
- Optional 8-channel AES/EBU interface card



True 20 bit linear recording

The V-Eight features true 20 bit linear recording on eight channels to tape. This means that the resolution of the audio-data recorded to tape increases tremendously. Below is a comparison that highlights the increase to a 20 bit signal:

A 16 bit signal divides the audio spectrum into 65'536 values.

A 20 bit signal divides the audio spectrum into 1'048'576 values. In low level recordings this increased resolution improves distortion and signal to noise ratio. Only the V-Eight, with its 20 bit resolution combined with the famous Studer converter technology, offers you the uncoloured, punchy and incredibly detailed Studer sound. ■

Compatibility

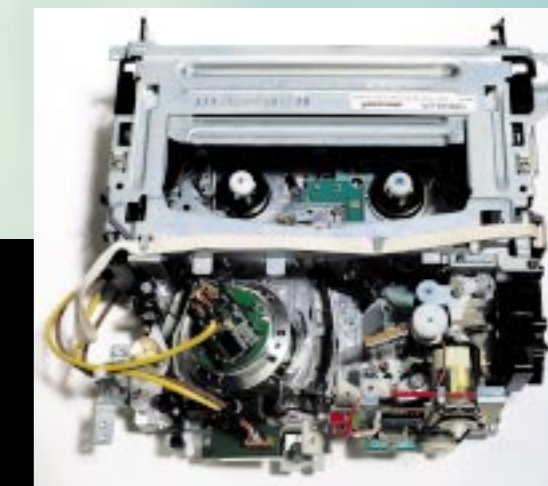
The V-Eight records onto standard S-VHS cassette and is 100% compatible with all ADAT formats - whether 16 bit or 20 bit. This means that any recordings from an Alesis recorder, no matter how old, can be played back and recorded on the Studer V-Eight. You can also play back any recordings made on the V-Eight on any other ADAT machine depending on the bit rate used. ■

Converters

The V-Eight is the first Studer machine to feature 24 bit delta sigma 128 times over-sampling converters on the input. This converter is the successor to the ones used on the D827 DASH machine which have been declared by many as the finest sounding A/Ds in the industry. Combined with the transformer-balanced analogue front-end you get that unique and legendary «Studer Sound» which has produced more hits than any other multitrack recorder, according to a Billboard investigation in 1996. ■

ADAT Synch

The V-Eight features full «ADAT» synch capability which allows full integration of the V-Eight with any other ADAT system already in use. Simply hook your existing unit up to the V-Eight ADAT synch port, the other ADAT's will just follow the V-Eight without the need for a BRC or any other device. ■



Remote control «Cockpit»

The «Cockpit» is the remote control for the V-Eight. Up to eight machines can be controlled from the «Cockpit», giving you control of a complete 64 channel multitrack recorder. The «Cockpit» is wedge-shaped and features an ergonomic layout which is unsurpassed. Like the V-Eight the «Cockpit» is equipped with Studer «Night Design» and runs with only one lead to the machine. The power for the «Cockpit» is drawn from the master V-Eight, allowing maximum flexibility of movement. The «Cockpit» can be mounted on the same stand as used for the D827 DASH recorder, this allows a full range of adjustments for user comfort. The picture to the left shows «Cockpit» combined with the «RLD». An optional kit with the side-panels is required to mount the two units together. ■



Direct-Drive Tape Deck

The V-Eight features an extremely high performance tape deck manufactured by Matsushita. The «IQ» transport has been developed for industrial use in top-of-the-line VCR's and duplication systems. Features of the drive are:

- Direct-drive capstan
- Direct-drive full-servo reel motors
- Automatic head cleaning wand

This transport, developed specifically for professional use, provides ultra fast lock-up times, locate times and wind speed. The tape tension is continuously monitored to guarantee gentle tape handling without compromising speed of use. ■

Powerful features, transparent operation.

Built-in Mixer:

The V-Eight features an unique built-in monitor mixer. Each of the eight audio channels has individual gain control on the front panel. The resulting mix is then available on the headphones jack and on the back panel as an XLR line output. In addition there is a return XLR input with gain control on the front panel that allows daisy chaining of the mixers. As many as 64 channels can be mixed without the need for additional equipment. ■

Built-in Synchroniser

The V-Eight features a complete chase synchroniser, Time Code, Wordclock and Video Reference as standard and MIDI in and outputs are provided on the back panel. The separate Time Code track is recorded into the subcode area of the tape which leaves eight channels for audio recording. The built-in SMPTE/EBU time code reader generator of the V-Eight supports any time code frame rate 30 FPS/29,97 FPS drop and non drop, 25FPS/24FPS.

The unit will also synchronise to all standard sample rates 48kHz/44.1kHz including pull down, pull up and vari speed. While in fast forward and rewind the V-Eight can output time code. Featuring MIDI machine control the V-Eight can simply be controlled by a sequencer or other device that transmits MMC commands, allowing the V-Eight to easily integrate with virtually any systems used in the professional environment. ■

Quality control

On the front of the V-Eight the «Quality» indication light gives you the ability to constantly monitor the status of your tape. ■



Front Panel

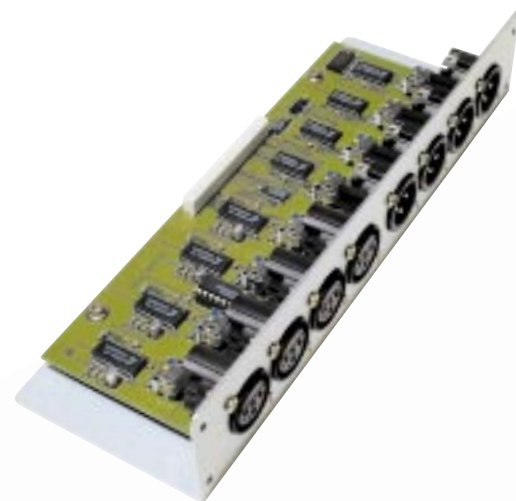
The front panel of the V-Eight features Studer's unique «Night Design». The buttons on the front panel are back-lit, the function is described on the surface of the button. The intensity of the illumination automatically adapts to the light intensity of the environment. This means that if you are operating in bright light the buttons are strongly illuminated and in low light the front panel will automatically dim. This unique feature ensures that you always have a perfect reading of all functions, this in turn improves access time and ergonomics. ■

Jog Shuttle and Aux Track

The V-Eight has a true analogue Aux track. Effectively a ninth track, the Aux track lets you choose any combination of the digital tracks and records them for analogue playback. The great advantage of this is that you can listen to proper analogue sound when you are editing or cueing. For editing both jog and shuttle modes are operated via a big wheel giving you ideal handling and manoeuvring. In jog mode you can scrub backward and forwards and get the exact "wheelrocking" sound you are used to from analogue machines. In shuttle mode you can adjust the speed anywhere between 1/4 to 10x speed. ■

Innovative ADAT features

- Digital copy and paste from tape to tape
- Individual track delay of up to 185 ms
- Auto punch in and out with definable pre and post roll
- 99 locate points which can be named and saved to tape
- Onboard digital routing for copying within a single machine
- Pitch-control of minus 200 cents and plus 100 cents
- simultaneous recording of analogue and digital sources
- Each analogue input and output features an external calibration pot >from +6dB to +26dB
- Rail system allows you to slide the machine in and out of a rack



AES/EBU Interface

The only additional option to the V-Eight is the AES/EBU interface. This interface can easily be installed and features four pairs of stereo AES/EBU inputs and four pairs of stereo AES/EBU outputs. ■



Remote Level Display

The «RLD» is a metering display which can show 64 channels of audio levels. Like the Cockpit the RLD is powered by the V-Eight and needs no additional power lead. The RLD

can be mounted on top of the Cockpit which makes it a complete unit featuring remote control and meterbridge. It has specially designed side-panels for use on a console and rack ears for use in a rack. ■



Back panel



Rack Rail System

The V-Eight offers as an optional extra, a rail kit which allows mounting in a standard 19" rack. This option is ideal when multiple V-Eight's are used as a system. ■

Specifications:

■ Recording Format	ADAT Type II
■ Number of Tracks	Digital Audio 8 Aux Track 1 Analogue 1 SMPTE TC
■ Sampling Rate	48kHz / 44.1kHz
■ Varispeed	+ 5.94 % / - 15.91% at 48kHz
■ Quantisation	16 / 20 bit linear
■ Frequency Response	20Hz...20 kHz, +/- 0.3 dB
■ THD+N	A/D 105 dB _{FS} at 1kHz («A» weighted) D/A 100 dB _{FS} at 1kHz («A» weighted)
■ Crosstalk Attenuation	> 90 dB
■ Dynamic Range	A/D 105 dB _{FS} D/A 100 dB _{FS}
■ TC Generator	SMPTE Standard 30, 24, 25, 29.97 D, 29.97 ND, 30 D, 30 ND frames/s
■ Analogue Inputs	Digital Audio Tracks Transformer balanced, impedance >10 kOhms Input Level: +15 dB _{FS} Adjustable between +6...+26 dBu Aux Tracks Electronically balanced, impedance > 10 kOhms Monitor Return, line XLR 3pin
■ Analogue Outputs	Digital Audio Tracks Electronically balanced, impedance <50 Ohms Output level +15 dB _{FS} Adjustable between +6...+26 dBu Monitor send, line XLR 3pin Headphone Output
■ Digital Inputs	AES/EBU XLR, 3pin female 8 channels (Optional) ADAT fibre optical link.
■ Digital Outputs	AES/EBU XLR, 3pin male 8 channels (Optional) ADAT fibre optical link.
■ Clock Inputs	Wordclock, TTL level, BNC AES/EBU ADAT sync Video sync (with loop-through, BNC)
■ Clock Outputs	Wordclock, TTL level, BNC ADAT sync
■ Other Inputs	TC (SMPTE Standard) (with loop through), XLR / 3 pin female
■ Other Outputs	TC (SMPTE Standard) XLR 3 pin male
■ Control Ports	Punch in and out (6.3 mm Jack) LRC Little remote control (6.3 mm Jack) Midi Machine Control Level Display (for Remote Level Display) RJ 45 RS-422 (Sony 9pin) Parallel Remote ADAT synch in and out
■ Supply Voltage	100V up to 240 V
■ Power consumption	< 100 Watts
■ Operating Temperature:	+5 ...+40°C
■ Humidity	class F
■ Dimensions	For rackmount: width 442 mm height 176 mm (4 HU) Over all Depth 393 mm width 483 mm height 185 mm

All specifications subject to change without notice.