

STUDER A820 MULTICHANNEL TAPE RECORDERS



The challenge to analog recorders has been met



Stability is the foundation for lasting precision

PROVEN TECHNOLOGY – PERFECTED TO
EXTEND YOUR POSSIBILITIES

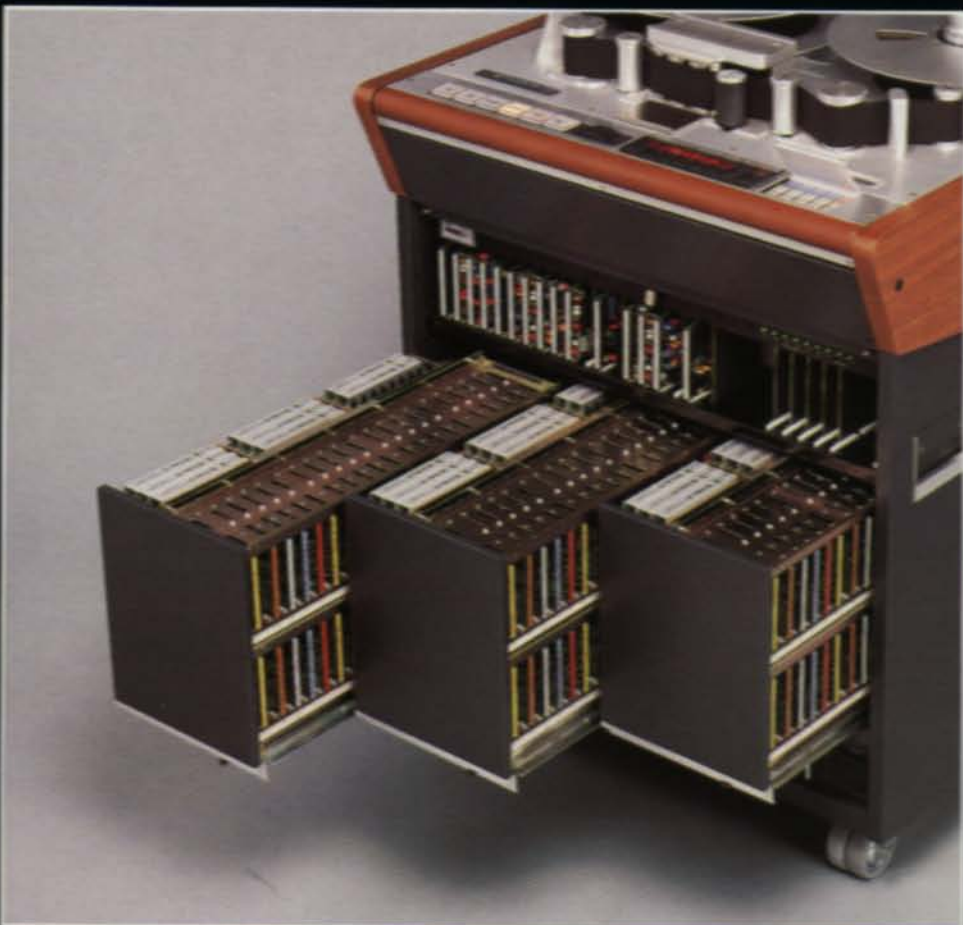
The time-tested analog recording process and the new digital recording process are often compared in regard to their individual merits. This has been a subject of lively debate, but since both systems have their advantages, both are likely to coexist for many years to come. Additionally, the digital challenge spurred us to discover that analog technology had not reached full maturity. Significant improvement was still possible. Studer accepted the challenge, determined to extend the boundaries of analog recording technology. The result is a new series of recorders, the A820, now available in multichannel versions. Studer has once again established a new reference standard.

A820 MULTICHANNEL –
AN ALTERNATIVE TO DIGITAL
MULTITRACK RECORDERS

Based on the rugged and extremely stable A820 transport, the new multichannel recorder offers a wide variety of extraordinary features, all in a compact and affordable priced package.

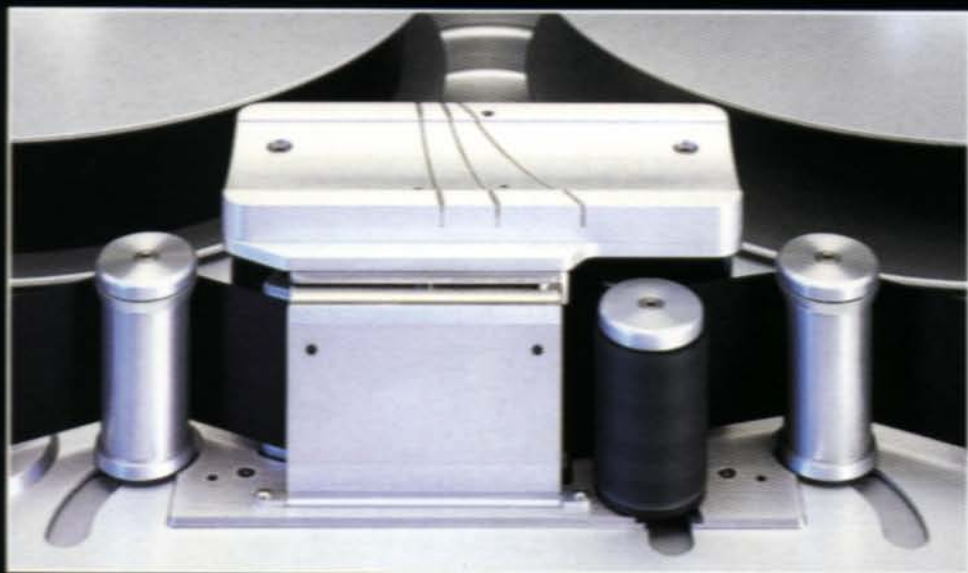


Transport chassis tilts upward for easy service.

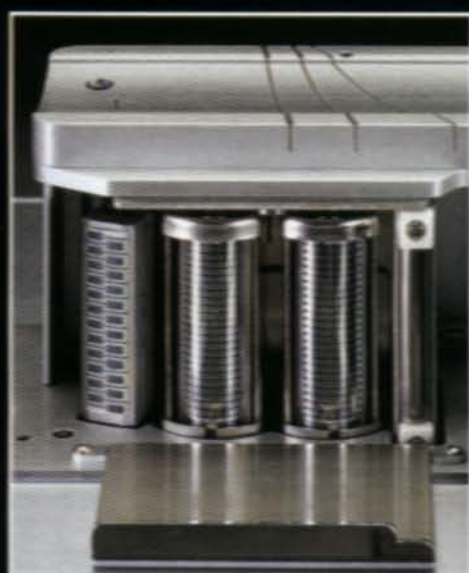


Each drawer also contains space to install 8 channels of noise reduction.

Advanced design concepts
guarantee compatibility with future requirements



Plug-in headblock with built-in crosstalk compensation controller.



Amorphous metal head for long life.

Some of the main transport features include:

- 14" reel capacity, 1" or 2" tape width, convertible.
- very high spooling speeds of up to 15 m/s (50 ft/s) with extremely fast acceleration and deceleration thanks to high torque DC spooling motors.
- reel inertia sensing with automatic adjustment for optimum tape handling even with mixed-size reels.
- switched mode motor drive amplifiers for high efficiency and low heat dissipation.
- excellent tape tension control system and software control of all tape deck parameters.
- processor controlled brushless low inertia DC capstan motor with reverse play feature and 3 standard tape speeds.
- programmable transport operating keys. Choice of over 40 assignable functions from internal function library.
- ease of service thanks to modular construction and tilt-up transport chassis.

The exceptionally fast and flexible A820 multichannel recorder offers unprecedented operating convenience and it has no equal in applications where speed and efficiency are of great importance. Multiple control ports and advanced motor servo systems make the A820 an ideal tool for any post-production facility.

HIGH PRECISION HEADBLOCK SYSTEM WITH ELECTRONIC CROSSTALK COMPENSATION

The modular high precision plug-in headblocks of the A820 multichannel recorder incorporate an electronic identifier. This electronic "key" automatically triggers the appropriate audio and deck alignment data for 8, 16 or 24 track headblocks. The compact headblock is fitted with new heads made from amorphous metal, a material offering superb magnetic properties and exceptional resistance to abrasion. Each headblock feeds a control to the preamplifier to optimize the crosstalk performance for the heads fitted into the machine.

FLEXIBLE AUDIO ELECTRONICS FOR UNEQUALLED PERFORMANCE

The high quality audio electronics of the A820 multichannel recorder use technology similar to that employed in the proven A810 and A820 ¼"-½" series. An excellent signal to noise ratio is achieved by placing the head preamplifier immediately adjacent to the headblock. New record amplifiers are fitted with DOLBY® HX PRO electronics for best possible headroom at high frequencies. The bias and erase drivers are fitted with an additional D/A converter to optimize the erase current on each individual track.

All audio electronics are fitted in drawer units for ease of service. Space is provided to install DOLBY® A, DOLBY® SR or TELCOM® noise reduction units. (Interface hardware is optional.) Level and control aspects of noise reduction are fully integrated into the A820 control software. An optional high speed time code reader may be installed in place of any of the 24 audio channels, thus allowing placement of code on any track.

EASE OF SERVICE – A STUDER TRADITION

All sub-assemblies are modular and designed for easy access. This approach involves higher manufacturing costs, but it pays off for the user in the long run.

Automatic functions for ease of operation and superior results

ERGONOMIC CHANNEL CONTROLS AND CLEARLY VISIBLE LEVEL INDICATORS

Fifty-segment LED bargraphs are used for level indication. The bargraph may be switched to PPM or VU mode depending on the application. Each channel has individual selector keys for SAFE, READY, INPUT, SYNC and REPRO mode switching. Several memories are available to store channel settings for recall with the touch of a button.

The metering and channel mode selector panel communicates serially with the transport and audio electronics, thus reducing required connections between panel and machine to only four wires. This remarkable innovation allows placement of remote bargraphs and channel mode selectors up to 300 feet away from the machine.

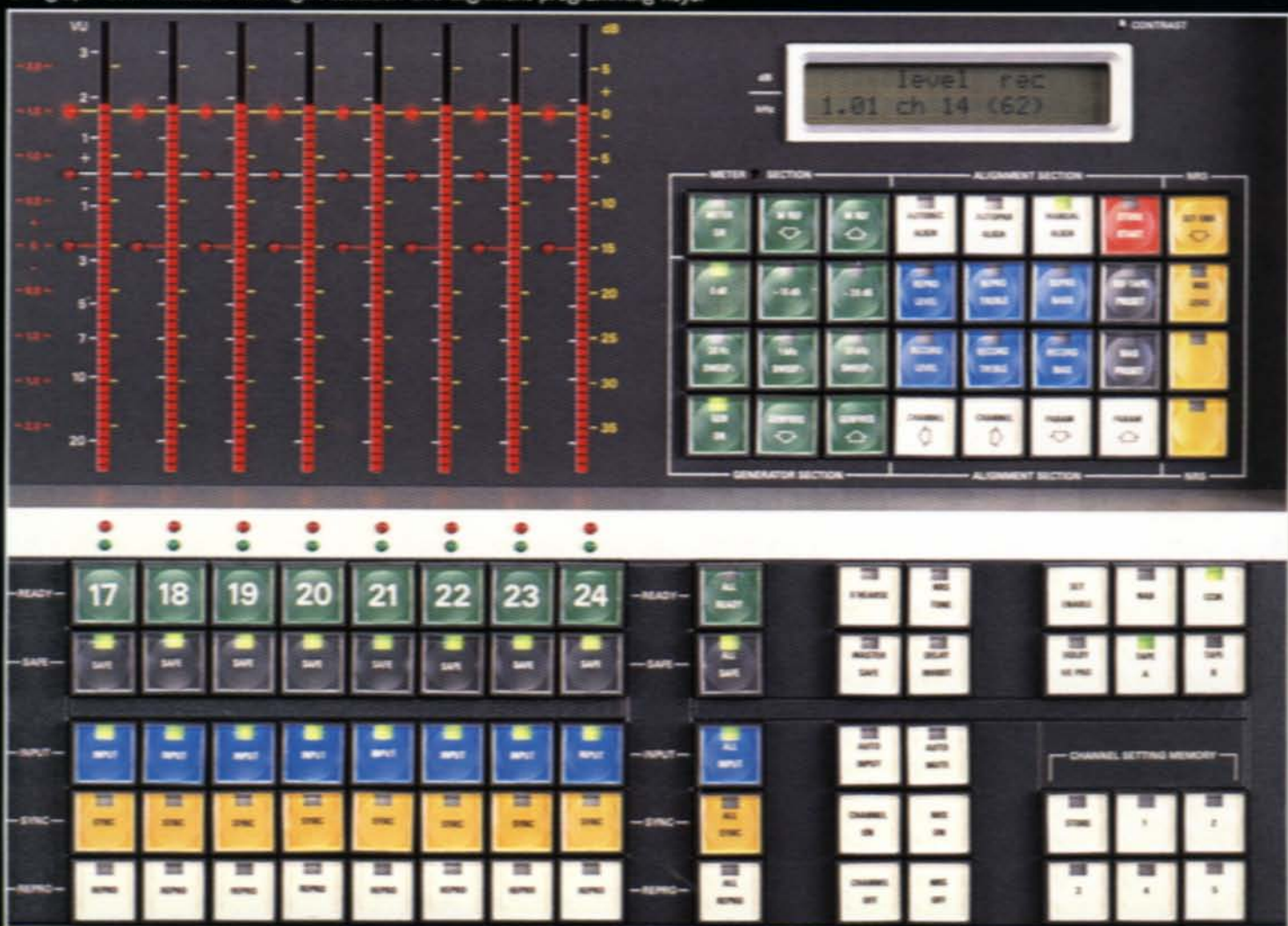
A DREAM REALIZED – AUTOMATIC ALIGNMENT OF ALL AUDIO PARAMETERS

Within a few minutes the new A820 multi-channel recorder can fully align all its audio parameters – automatically! This feature has long been the dream of hurried studio personnel. Manual adjustment of individual parameters is also possible, of course. Memories store alignment parameters for 2 tape types; 8, 16 and 24 track headblocks, and data for NAB and CCIR alignments.

A built-in sine wave generator with selectable frequencies and sweep function is used for automatic or manual alignment. The bargraphs can be switched to a special metering mode for exact level measurements. The metering range in this mode is reduced to ± 2.5 dB with a resolution of 0.1 dB.

Alignment data can be downloaded via a built-in biphasic port and stored away on tape. The same port can be used to upload data from tape or simply to verify data stored on tape through correlation with data stored in the machine.

Bar graph level indicators with high resolution and alignment programming keys.



Compact, powerful, and flexible:
an ideal synthesis of digital and analog technologies



Full remote control of transport and audio from up to 100 m (300 feet) away from the machine.

**COMMUNICATION WITH THE OUTSIDE
WORLD ESSENTIAL FOR FORWARD-
LOOKING STUDIOS**

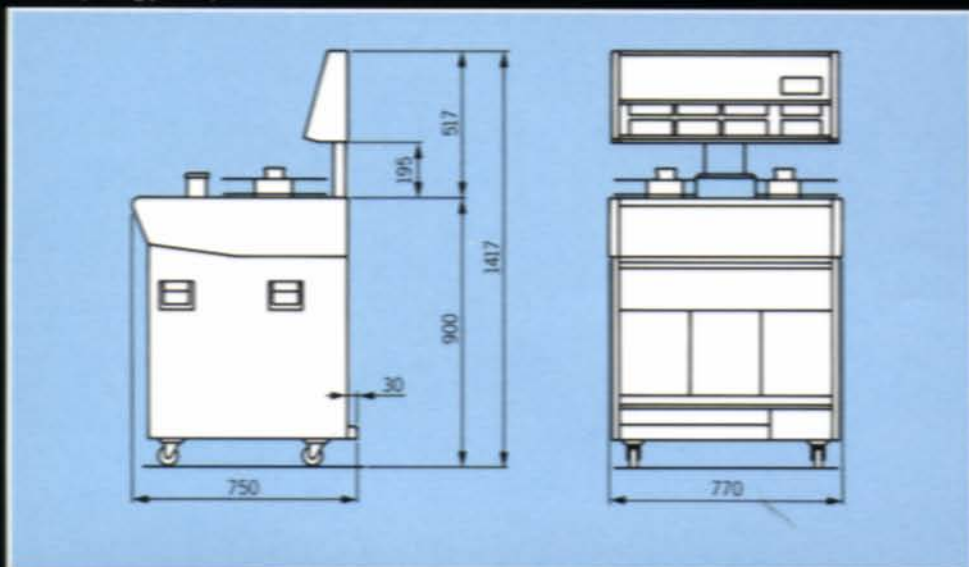
The new A820 can talk to the outside world through the following standard ports:

- parallel transport and synchronizer control port with pin configuration identical to A812 and A820 1/4"-1/2" machines.
- serial port for autolocator, transport control, remote timer, channel status control, and external bargraph indicators.

Available optionally are:

- serial RS232 port with ASCII protocol or binary protocol and RS422 according to SMPTE/EBU.
- NRS control port for external noise reduction system (DOLBY® or TELCOM®).
- parallel interface for channel status control.

The surprisingly compact A820 fits into the smallest studio.



Sales offices:

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We reserve the right to make alterations as technical progress may warrant.
Some photos show options offered at additional cost.

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