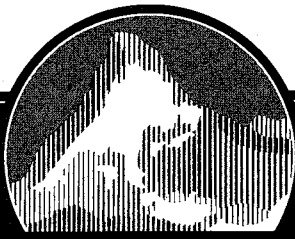


SWISS

VIEWS AND NEWS FROM SWITZERLAND



SOUND

2/1982

A PUBLICATION BY STUDER INTERNATIONAL AG

## Editorial

## The only thing that's sure is change



The new building and the headquarters go well together.

**A** small news item in the first issue of SWISS SOUND reported in fine print under the heading "... in brief..." has already become history: Studer International AG and with it also the editorial staff of SWISS SOUND have moved and are already in action on Althardstrasse 10, in a building complex that in size and architecture is identical with the nearby headquarters building. The far-reaching changes resulting from an expansion of this magnitude are, of course, the consequences of planning decisions taken at higher management levels. As Dr. h.c. W. Studer unmistakably explained in spring of 1980, shortly before the construction projected was started (SRP/34):

"In view of today's economic plight, a good measure of optimism is required for taking this step forward. Although I'm convinced that the times ahead will be even harder, I consider this project to be an absolute necessity to prepare us for whatever challenges the future may hold in store."

Since the economic situation has not improved in the meantime, this statement carries even more weight.

This most recent expansion has now provided the freedom for considerably enlarging the development department and for implementing additional automation and streamlining measures. At the same time, the urgently needed additional space for the training center, the equipment acceptance rooms as well as the shipping and storage facilities of STI is now available. This for-

ward-looking vantage also provides the opportunity for a brief retrospect that can be found in the article "Umzug", written by the senior among our sales managers, Walter Hodel. His refreshing view revives at the same time some of the thoroughly Swiss federalism.

At this point I wish to take the opportunity to thank our esteemed readers for the many positive reactions to issue No. 1 of SWISS SOUND. I'm looking forward to continuing creative cooperation.

Your

*H. Sigurthson*

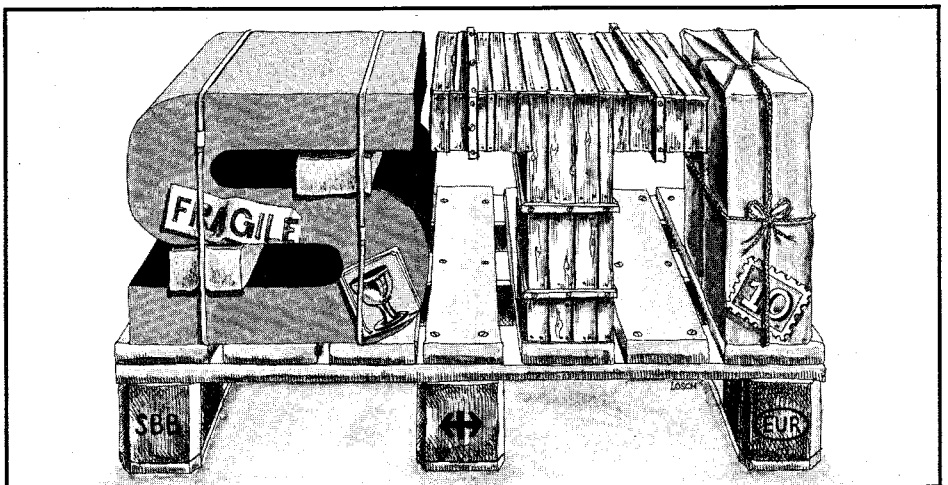
### Number Ten Althardstreet «Der Umzug»

**T**he spontaneous reaction of German-speaking people to the term "Umzug" is a joyous one, as it stands for parade or pageant which are part of many folkloric events! However, as soon as it is suggested that we are talking about its alternate meaning, a change of domicile, the previously happy mood immediately changes to bewilderment, for that is something no-one undertakes voluntarily, something we tend to postpone or to delay because it is associated with days and nights of

SWISS 2/82 SOUND

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packing, wrapping, and unscrewing, after which this procedure is repeated in the reverse sequence; something to which we react after the third crystal glass has been smashed with, depending on our temper, a crying fit or by

philosophizing on the insignificance of household goods! Although the two meanings of "Umzug" are rather diverse, they have something in common, for both interpretations involve a seemingly endless procession of people carrying

objects from one location to another.

However, the procession resulting from the change in domicile of Studer International attracted fewer spectators and the route to our new home at Althardstrasse 10 in Regensdorf was shorter and perfectly straight. We won't bore you here with a detailed description of the planning required for such a transfer of material.

Instead, we shall page back in the relatively short removal history of our sales organization for professional Studer equipment: to the year 1960, in which the EMT Company took up residence in two offices in Wettingen. This company was engaged in the export of its own equipment and the studio products of Willi Studer in Regensdorf, which at that time consisted of the tape recorder C 37!

After the first three years, which were crowned with success, the offices were relocated to a 4-room apartment on Seminarstrasse where an additional room was rented in the basement for warehousing and shipping operations. The pioneering spirit and the dedication of the 6-man team, which incidentally was joined in 1965 by the writer of this article, are still fondly remembered. After expanding within the various floors and corridors of this building, the offices were relocated from Seminarstrasse to a new office building on Hardstrasse. With the new generations of magnetic recorders and mixing consoles developed and manufactured in Regensdorf, the contacts with the manufacturing company greatly intensified and led in 1971 to the founding of Studer-Franz Ltd. and in 1974 to Studer International Ltd.

Then suddenly, what was thought to be a rumor, turned out to be reality: the integration relocation from Wettingen to the original manufacturing site in Regensdorf, built by Mr W. Studer in 1960 and which had become vacant after the construction of the new manufacturing building No. 3. Whether it was on account of the distance or because of the departure from the Aargau to the Zurich region is not clear, but some members of the 30-man team hesitated for the first time. Each employee had to decide for himself whether he wished to continue his career with STI or whether he preferred a change. Although there were many uncertainties combined with a commuting distance that had increased by 15 km, which made it impossible to eat lunch at home, and a change in surroundings, the majority of the STI pioneers considered it to be advantageous to have the offices near the manufacturing site and in December 1976 they pitched their tents in Regensdorf.

However, the odyssey is not yet over. A new factory building has been completed. Again STI has packed its suitcases. By the time these lines come off the press, the printing shop will have changed its location and STI will have been dispersed in premises located between the 6th floor and the basement, however, suitably organized by department. The constellation between the sales offices has changed. Between coffee breaks, the beginning and end of which are signalled by a bell, we now see new faces.

The pulse of the employees engaged in manufacturing becomes audible

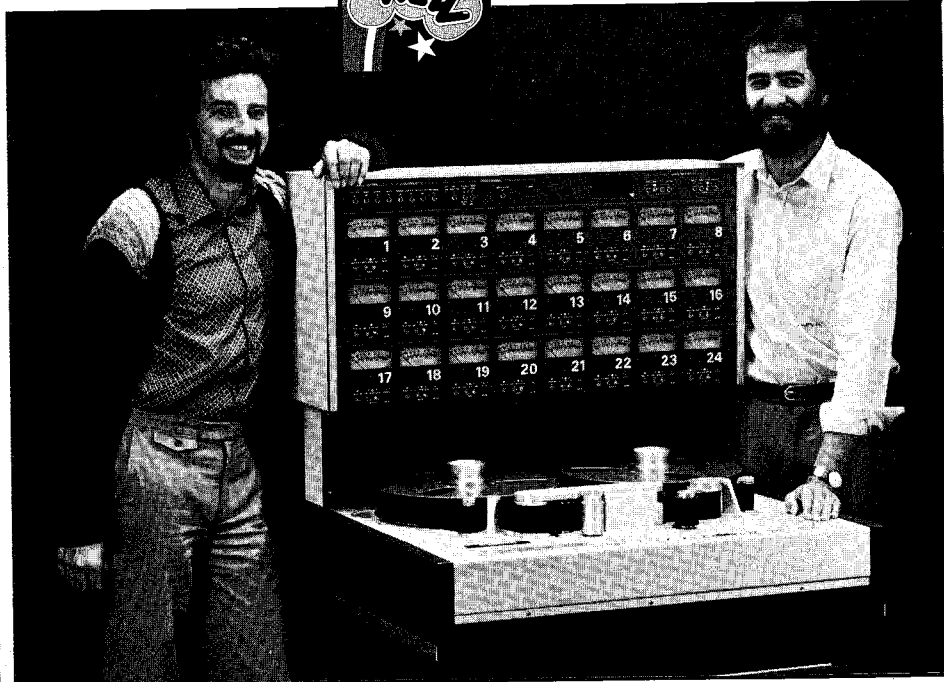
and hopefully also visible. The prejudices, that invariably take hold of us before any change in domicile, have not yet been fully eradicated; but they will be on the day when we are able to put things into proper perspective, when we begin to realize that the new surroundings have become familiar, and that it is a prerequisite, yes, even a duty in the present time fraught with economic uncertainties, to muster the necessary courage and goodwill for facing new situations and changes, so that in unity with the manufacturing operation we can safeguard our new place of work.

Walter Hodel

## A800 MK III



...and how it was born



Product engineers Urs Rösli (left) and Louis Keller together with the new A800 MKIII.

### Information from the "Technology" department in the form of an interview.

**T**he "Technology" department of Studer International AG is responsible for preparing new equipment for customer acceptance directly at our Regensdorf factory or for worldwide distribution. Its spectrum of activities is highly diversified and covers assignments ranging from field repair service to the construction of custom equipment for special orders or the commissioning of turn-key installations. Last but not least, product management is also included. SWISS SOUND has interviewed two members of this team, Messrs Rösli and Keller.

**swiss sound:** Mr Rösli, you are a

product engineer of STI. What activities are involved in your job?

**Rösli:** During its manufacturing life, each product passes through a number of phases. For this reason, the main emphasis of my job also shifts to different aspects. In the beginning, the product engineer must familiarize himself with the new product. During the introductory phase, the activities center on internal training and presentations to distributors and customers. Interaction with the quality assurance group and the editor of the technical documentation also begins. Later, customer training becomes an important aspect.

An additional responsibility is customer support for equipment maintenance and new applications.

**swiss sound:** How heavy is the workload for these activities?

**Rösli:** This is difficult to define. Depending on the requirements, additional tasks must be performed such as the development of technical bulletins in support of product improvement. Occasional assignments at customer sites and assistance at exhibitions are also part of our job.

**swiss sound:** Which product line are you responsible for?

**Rösli:** Personally, I'm responsible for the introduction of the PCM equipment, the TLS 2000 and in cooperation with Mr. Keller also for the A800 line. We currently share the training work and substitute for each other. It is planned that Mr. Keller will take over the A800 activities by the end of this year.

**swiss sound:** Mr Keller, to what extent have you been involved in the product management of the A800?

**Keller:** Up to now I have been mainly engaged in the development of the new A800 manual and the equipment maintenance training classes as well as various technical bulletins. I also have been in charge of acceptance procedures and have processed customer inquiries.

**swiss sound:** In addition to the maintenance training classes, are there other types of instruction?

**Keller:** We distinguish between equipment demonstrations, operating and maintenance classes. These are conducted either at the training facilities of STI or directly at the customer. The language and the duration of the class as well as the depth to which a subject is covered depends on the requirements and capabilities of the participants.

**swiss sound:** Does this mean that you tailor the classes to the targeted participants?

**Keller:** Yes, experience has taught us that it is better to adapt the classes to the specific national and equipment requirements. Because of this, however, the training work becomes much more involved and time-consuming.

**swiss sound:** Would you say that the knowledge level of the participants in A800 classes is generally higher?

**Keller:** That is correct. Quite frequently, these students possess solid background experience and in some cases even practical experience. In contrast to the A800, fundamental audio technology concepts must be imparted in B67 classes.

**swiss sound:** Are there significant differences within a student group?

**Keller:** Since the generally offered classes must be split into language groups, students with highly different levels of background knowledge can be found in the same group. However, in A800 classes this poses few problems.

**swiss sound:** What experiences have

you made in the course of your activities as an instructor?

**Keller:** I especially value the personal contacts. They contribute significantly to the excellent cooperation with our customers and distributors.

**swiss sound:** Mr Rösli, what was the situation when you started your work as a product engineer?

**Rösli:** One of my first tasks was the commissioning of an A800/TLS studio at RCA in Rome. The product management in the sense we understand it today did not exist at that time. The customers were mainly supported directly by the development laboratory and the quality assurance group.

**swiss sound:** What were the circumstances that led to the development of a "one-inch machine"?

**Rösli:** Because of the fast reaction time of the tape transport and its rehearse capabilities, the A800 appeared to be highly suited for sound track recording of video material. Since rarely more than 8 channels are used in such applications it made sense to build a 1" version.

**swiss sound:** Did this trend lead to the development of the MKII?

**Rösli:** Only indirectly. During the development of the 1" recorder, unexpected problems with the tape transport control were encountered. The redesigned MKII control can cope not only with the different tape reel inertias but it also permits incorporation of all the previously accumulated experience. For this reason, the 2" recorders were also equipped with the MKII control. All A800 versions have therefore profited from this development. For example, additional safeguards for gentle tape processing have been incorporated such as the monitoring circuits for the power transformers and the supply volt-

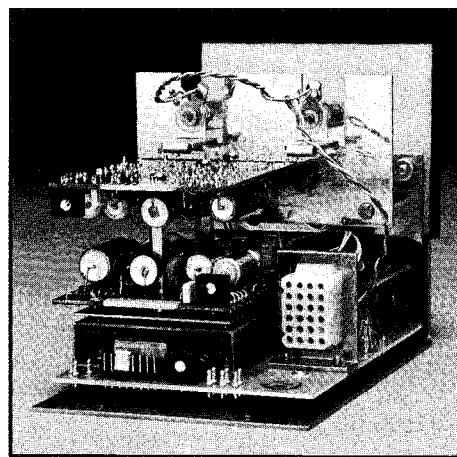


A machine deserving its own designation: MKIII.

ages.

**swiss sound:** How did the peripheral equipment develop?

**Rösli:** The autolocator and the vario speed remote control have proven themselves for over three years now. During this period the TLS2000 has been adapted for use in conjunction with the A800 with various headblocks and head spacings.



Electronical output balancing stage built into the VU-meter unit.

**swiss sound:** What is different in the new A800 MKIII?

**Rösli:** The most important change without doubt is the line amplifier, because the A800 is now available with transformerless inputs and outputs. In addition, the remote control interface has been enhanced with important signals by including an additional circuit board.

**swiss sound:** Which applications can be implemented with the expanded interface?

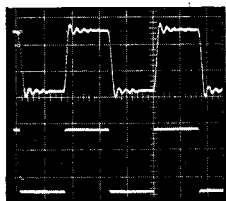
**Rösli:** Some large mixers, such as those of Harrison (Melquist), SSL, and Neve-Necam, are now able to control the A800 remotely. Synchronizers can now act directly on the capstan motor by supplying a reference frequency.

**swiss sound:** The magic word, "transformerless": Is this something for people who can hear the grass grow?

**Rösli:** Transformerless is certainly today's trend, especially in American recording studios. Whether this improvement is really audible for all listeners or not, is difficult to ascertain. With measuring equipment, however, the differences are easy to detect.

**swiss sound:** Line outputs equipped with transformers frequently show a peculiar behaviour, depending on the load impedance. Do transformerless output stages show a different behaviour?

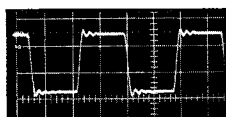
**Rösli:** They certainly do. We have taken a few CRT pictures with and without transformers, with and without low-impedance line termination. The differences are clearly visible.



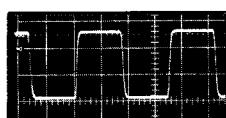
Measurement conditions: 5 kHz

A800 with transformer output open

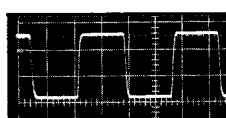
Upper curve: output signal  
Lower curve: input signal



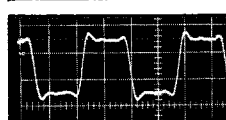
A800 with transformer output terminated, with 600  $\Omega$



A800 without transformer output open



A800 without transformer output terminated with 600  $\Omega$



A800 without transformer output terminated with 600  $\Omega$   
Signal from reproduce head, 30 ips, Ampex 456

**swiss sound:** Which parameters have been improved with the redesign of the inputs and outputs?

**Rösli:** A number of improvements have been achieved, for example the frequency response, the intermodulation distortion (IMD), and the harmonic distortion (THD). Of course, an improvement in the phase modulation distortion was also achieved because the change in the  $\mu$ r factor with transformers is not linear to the current intensity.

**swiss sound:** Are there still positive sides to transformer-equipped input and output stages?

**Keller:** Yes, one of the advantages provided by transformers is the high common-mode rejection over a wide voltage range. In addition, the electrical isolation provides additional safety.

**swiss sound:** For which users do transformer-equipped output stages still offer advantages?

**Keller:** Many broadcasting corporations will still have to use transformer stages in order to comply with the local safety regulations.

**swiss sound:** Will transformers continue to be available for the inputs and outputs of the A800 MKIII?

**Keller:** The transformer version will be available as an option.

**swiss sound:** The A800 MKIII with its new hardware and software really appears to be a masterpiece. Why was the MKIII necessary?

**Keller:** Technological development never stops. The A800 had to be upgraded to the latest requirements. We have accumulated many experiences and translated these into practical

improvements in cooperation with the quality assurance group. A very important source for improvements is the feedback from our customers. The result of these improvement efforts was worthy of the new name, Mark III!

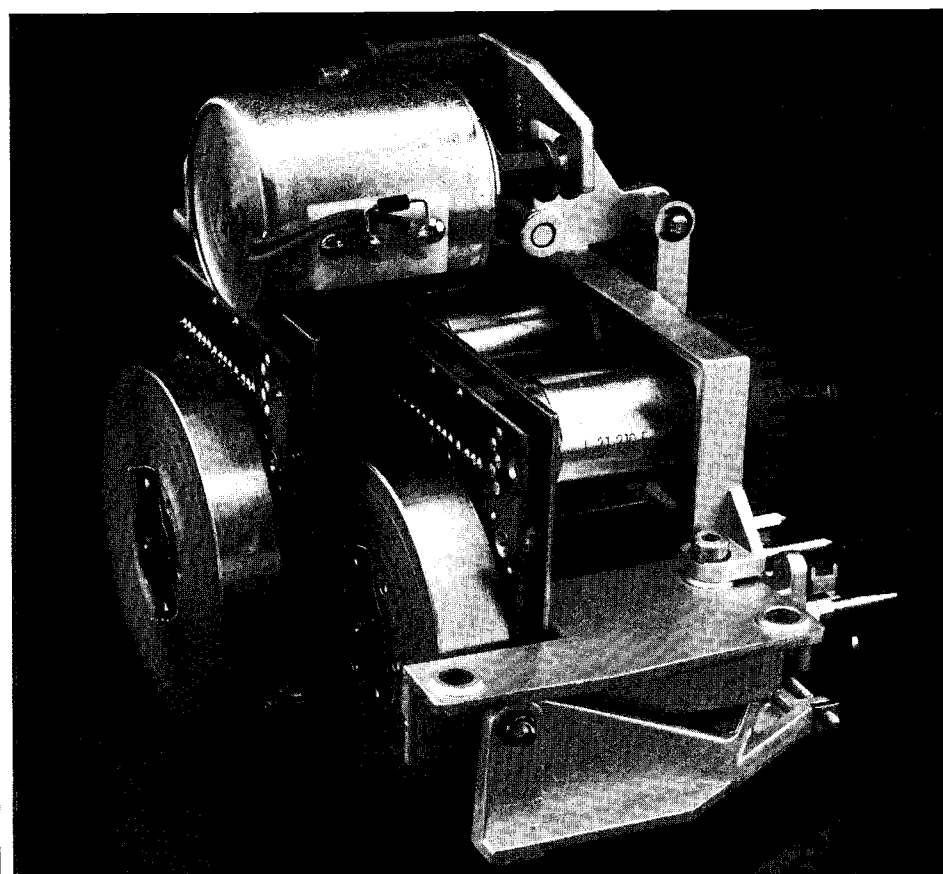
**swiss sound:** Does this mean that the A800 product engineers can now sit back and relax?

**Rösli:** Not at all. We also are responsible for other equipment. Enhancements to the A800 product line will continue, new applications will be added, and the in-depth seminar to be held at the end of November requires careful preparation!

**swiss sound:** Thank you Mr Rösli and Mr Keller for your time.

Reflections by the product manager upon the subject:

## STUDER A710 - the cassette recorder that is different



All-metal diecast chassis: a prerequisite for long-term precision and stability.

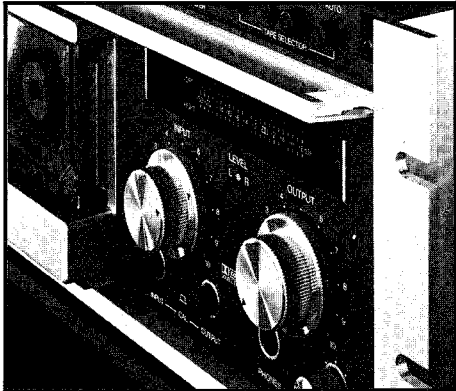
**W**hat happens to a cassette recorder that in respect to tape transport construction, design and layout of its electronics modules steps completely out of line and in addition is manufactured by a company that enjoys a world-wide reputation for producing outstanding tape recorders and equipment for professionally engineered studios?

Our answer to this question is: it will certainly not go unnoticed by the professional audio community, because even in the studio the cassette can no longer be ignored.

**The tape transport and the basic electronic modules are eminently suited for professional applications.**

A glance at the tape transport shows how the most important basic requirements are met: three cast-alloy blocks, directly and rigidly joined, ensure perfectly stable and reproducible conditions even in continuous operation. Each of its four motors (dual capstan and spooling) functions mechanically totally independent of each other. This made it possible to design the mechanical and

the control functions of each motor for a specific tape transport function. Since no belts or intermediate gears are found in this arrangement, the requirement for maximum durability and gentle tape handling is ideally met.



Audio controls: functional logic.

A brief look into the electronic modules suffices to recognize the professional design: The electronics is functionally subdivided into individual printed circuit boards. This concept not only renders maintenance much easier but small modules are also less costly to replace. The versatile plug-in PCB technology also enables the implementation of various noise reduction systems on two boards which can be offered as alternatives.



**Urs A. Zogg (29)** received his diploma as electrical engineer in 1978 from the Federal Institute of Technology in Zurich. For two years he worked in the mixer development group and since 1981 is the product manager for the REVOX hi-fi product line.

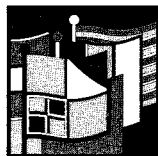
### Supplementary features for professionals

Relatively little effort was required for modifying the B710 MKII for truly professional service. The foremost modification certainly is the enhancement with balanced inputs and outputs. The new STUDER A710 - this is how the professional version of the B710 has been designated - is equipped with an additional stereo balancing unit of the same type that is used also in other equipment, e.g. the mixers. The facilities for selectively operating with calibrated or uncalibrated inputs and outputs fulfills the second important requirement of professional users. The necessary space for this modification was obtained by eliminating the superfluous microphone inputs and the corresponding control of the B710.

### A word concerning tape types

Professional users rely on recorders that function immediately and reliably without elaborate preparations. Automatic calibration or manual calibration which may be necessary even if the cassette has only been reversed - is out of the question for the professional user. For this reason it is possible to calibrate the Studer cassette recorder with fixed parameters, as is the case with professional studio tape machines. We therefore calibrate each A710 to ideally suit the (3) tape types preferred by the user. For each tape type and each channel we take into consideration the RF bias, the sensitivity, and the treble boost (altogether 18 trimmer potentiometers for audio parameters).

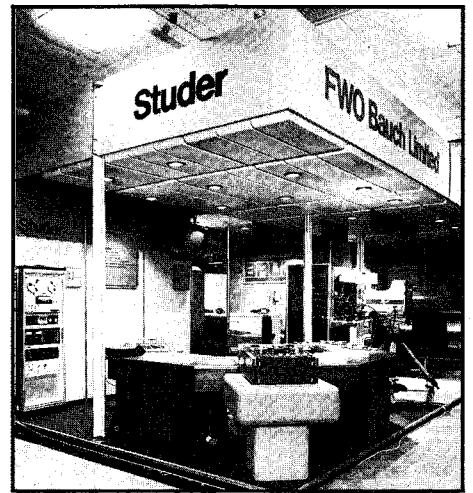
Another important hint: also for the STUDER A710 we recommend BASF CrO<sub>2</sub> Super II or, for optimum price performance, the tape with even closer tolerances, REVOX CHROMIUM cassettes.



Michael A. Cooper:  
**IBC 82**

The largest ever International Broadcasting Convention was held in Brighton, England, on September 19th - 22nd. Such was the demand for space that the show overflowed the Metropole Hotel/Conference Centre into the nearby Bedford Hotel. Interestingly the show only moved to the Metropole in 1980, having outgrown its previous facilities in London.

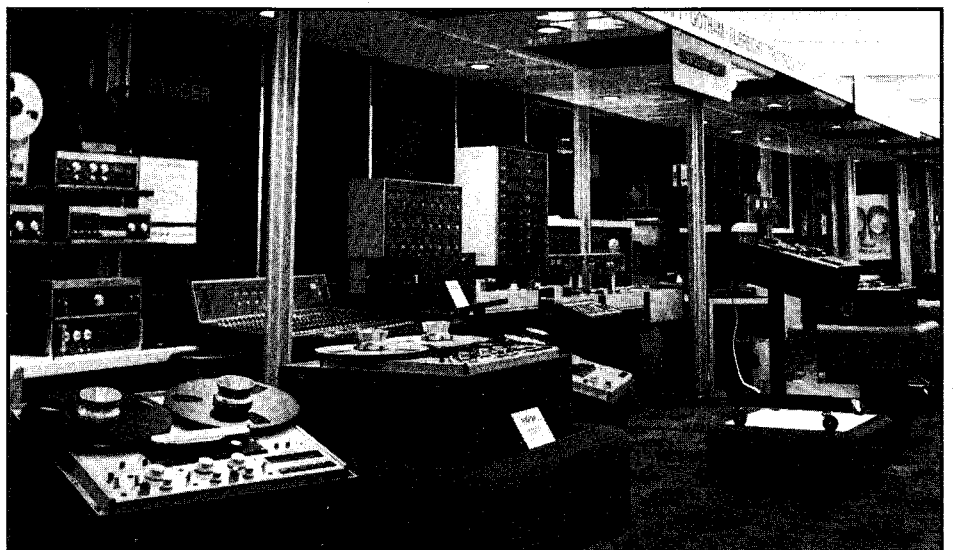
126 exhibitors from all over the world ensured an interesting show for the 5,800 visitors from 60 countries, by ex-



Pleasant presentation in a modern stand.

hibiting a large number of new or first-time-in-Europe products. The spread of digital micro-processor technology was a particular feature of the stands, where it could be seen applied to colour television cameras, editing systems, vision switchers, audio processors, consoles and a host of other equipment.

Of course, the emphasis at IBC is very much orientated toward the world of broadcast video: not just cameras and tape storage systems, but lighting equipment, studio dollies, computer generated graphics and special effects units as well - audio is historically of secondary importance in this market. It was therefore significant that at this IBC there were more audio manufacturers than ever before, which clearly underlines the increasing marriage between video and audio.



F. W. O. BAUCH presents the complete STUDER product line at the IBC 82.

No-where was this marriage more ably demonstrated than on the stand of F.W.O. Bauch Limited, where Studer products were integrated with products from CMX, Albrecht, Grass Valley Group and Ikegami. For example a 24-track STUDER A800, synchronised by SMPTE time code to three Albrecht MB51 sprocketed film recorders and a Harrison TV-3 teleproduction console (which was fully automated by Melkuist) were all acting as slaves to an Ampex VPR-2B 1" video transport, effectively creating an integrated TV/Film sound dubbing system.

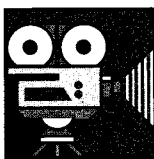
The STUDER A810, which caused great interest at the APRS exhibition, continued to generate serious enquiries and sales, endorsing the careful market research and product development of the machine highlighted in the first issue of Swiss Sound.

IBC being a truly international exhibition, there was a great deal of overseas interest in the complete local radio studio which Studer exhibited at this show for the first time. The radio station comprises B67 tape machines, a 269 mixing console, EMT turntables and the new STUDER A710 professional derivative of the Revox cassette deck.

Michael A. Cooper is a member of the marketing service department of F.W.O. Bauch Ltd.

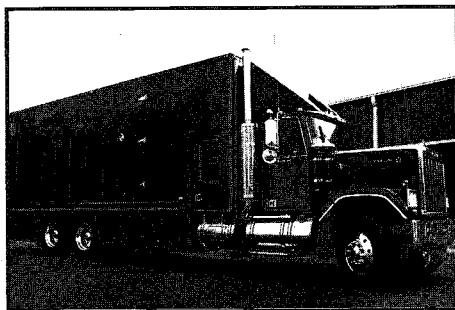
The other Swiss success story at the exhibition was the excitement caused by Nagra/Kudelski of Lausanne who, in cooperation with Ampex, have created the world's smallest and most portable 1" C-format video recorder, designated the VPR-5. This beautifully engineered machine, weighing only 6.8 kg, carries the same hallmark of precision that has made so many Swiss products world famous.

Despite the notoriously changeable British weather which varied from warm sunshine to howling gales, and exhibition hall temperatures which rarely dropped below 30°C, all Studer personnel and machines functioned normally throughout the show!



Darth Vader hits the road

## «Le Mobile» visits Studer in Nashville



«Wunderwagen»-meticulously maintained.

Far from it. Inside this mysterious-looking vehicle, owner/engineer Guy Charbonneau has installed a fabulous (albeit compact) state-of-the-art sound studio. The equipment roster puts most "fixed base" studios to shame: a Neve console, custom JBL monitors, two EMT digital reverb units, 90 assorted microphones, 35 pieces of signal processing gear, plus complete facilities for video interfacing; Sony VTR, color monitor, and cameras. Also Le Mobile is the only remote truck in North America using STUDER A800 recorders (two 24-tracks)



Guy Charbonneau in Le Mobile: «I'm a real fanatic about equipment maintenance.»

In the first week of a sultry Tennessee August, the sleek black-and-chrome GMC truck wheeled into the parking lot of Studer Revox America in Nashville. Envious truck drivers and curious warehousemen watched with admiration from an adjoining trucking terminal, noting the flawless ebony finish, the gleaming chrome plating on all accessories and trim, and the bristling communications antennae. Yes, Le Mobile would be an impressive truck even if the back end were used merely to haul fresh vegetables from farm to market.

and the TLS 2000 tape lock system. (In fact, back in 1978, Charbonneau bought the very first A800 to be delivered in North America!) Le Mobile also employs two STUDER B67's for general two-track recording duties.

The truck body and basic interior of this "studio on wheels" were built in Montreal, Canada in 1977. (Charbonneau owned a smaller, less sophisticated remote unit from 1974-1977.) In 1978, while in New York on assignment from the Canadian Broadcasting Corporation, Charbonneau took Le Mobile to



Longest experience with the A800 in the USA.

A & R Recording Studios in hopes of soliciting work from famed pop producer Phil Ramone. Unfortunately Ramone was out at the time, but the A & R engineering staff examined the Canadian "Wunderwagen" and were suitably amazed. The news soon reached Ramone, who then hired Charbonneau to record Paul Simon's soundtrack for the film "One Trick Pony."

In the three years that followed, Charbonneau was constantly called away from his Montreal home to work on recording projects in the United States. Popular acts recorded by Le Mobile include Journey, Pat Benatar, Loverboy, Billy Joel, Peter Frampton, Kansas, Lena Horne, Dolly Parton, The Doobie Brothers, Foreigner, and The Police.

Earlier this year Charbonneau moved the legal headquarters of Le Mobile to Nashville, where all financial details will be supervised by Elfi Muggler. (If the name seems familiar, it's because she's the wife of SRAI Vice President Bill Muggler). All booking and scheduling for Le Mobile are handled by Abe Hoch of Olympic Entertainment in New York.

During the August visit to Nashville, Charbonneau turned over his A800's to Thomas Jenny of SRAI for preventive maintenance. "I am a real fanatic about equipment maintenance", Charbonneau admits. "I want to be sure everything is working right all the time, so I go through and have equipment checked even if it is working perfectly. I may have the best maintained tape machines in the country, but I bring them in to Studer every year and have them checked out from top to bottom."

Charbonneau is convinced that his strict maintenance policy has helped develop his list of "big name" clients. "I believe having the best equipment and well maintained equipment is an important key to creativity. When you are working, you don't want to be thinking about the equipment. It has to be easy and effortless, with no limitations and no worries. When you work in Le

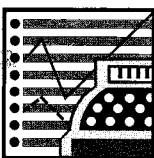
Mobile, it's a sure thing. You know it will all be on tape, and it will all sound good."

Charbonneau's philosophy on maintenance also applies to the exterior of Le Mobile. The truck is washed almost every day and polished at regular intervals. Charbonneau refuses to drive on wet or muddy streets unless absolutely necessary. The smallest nicks and scratches in the paint are touched up immediately. As a result of this meticulous care, Le Mobile is always shiny, sleek, and (remember, it's French Canadian) rather sexy. Some admirers even sense an air of sinister mystery surrounding the vehicle.

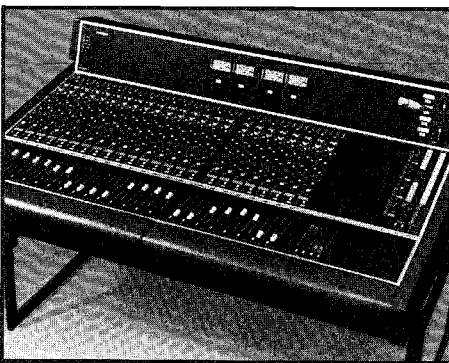
Pop star Jackson Browne, for example, says Le Mobile reminds him of Darth Vader.

Sam Borgerson

### Right on success



## Studer worldwide



For Telegiornale in Rome:

### Series 900 custom-made mixing desks

After extensive negotiations with a delegation of RAI, an order for two Series 900 mixing desks (40/8/4) has been obtained. The evaluation process that began with the AES in Montreux resulted in a firm order by the middle of July.

The decision in our favour was based on the confidence which the Italians, based on many year's of experience, placed in Studer as a manufacturer of high-quality products, as well as the flexible cooperation and support by our representative in Italy, Roberto Beppato. The 3 meter long desks will be put into operation by Telegiornale in Rome at the end of January 1983.

Decision in favour of:

### Series 900 mixing desks

Pleasant news have been received from the studio department of Studer Revox GmbH of Löffingen, Germany: Already during its introductory phase, the mixing technology of the Series 900 has stimulated much interest. The extensive configuration and application flexibility, the advanced technological level combined with a very favorable price/performance ratio, and the functional design were the decisive factors.

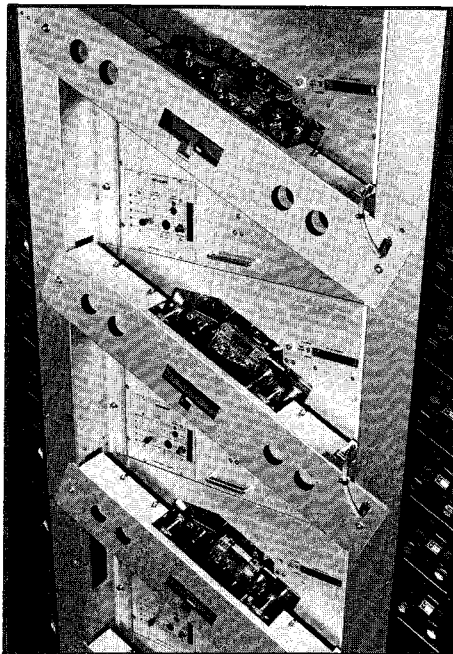
Exhibition and Conference Center Hamburg (CCH), and the School for Broadcasting Engineering, Nurnberg (SRT).

Commercials Broadcasting Automation

### Success for CAMOS in Germany

Second to the Süddeutsche Rundfunk (SDR), Radio Bremen (RB) has also decided for the STUDER CAMOS System 3000. Our supply to Radio Bremen comprises a complete computer-controlled commercials broadcasting system CAMOS 3005 with a storage capacity for over 4000 different commercials. The new system will start transmitting commercials at the end of 1983.

Player stack with four CAD 3010.



## The 1000th B67 in Sweden

In the near future, Sweden will receive its 1000th STUDER B67. The majority of these recorders are installed at the Swedish Broadcasting Company –



be it in the main facilities in Stockholm or widely dispersed in the regional studios throughout the country.

A major contributor to this success is ELFA Radio & Televisions AG of Solna, (founded in 1945). The Studer products are marketed by the studio team under

the management of Tore Hedlund, a graduate electrotechnical engineer who has been part of this team since 1966.

We wish Mr. Hedlund and his team much success also in the future.

ELFA Studio Team (left to right): Jarmo Masko, Tore Hedlund, Mona Lindquist and Anders Olson.



Newly commissioned:

## Four "almost" new studios for Radio Abu Dhabi



Mixing console 369 – center of studio 6 control room.

In the Arabian Region, Studer International SA has gained an excellent reputation through the on-time completion of installations. Turn-key type projects for radio studios have become a "specialty of the house".

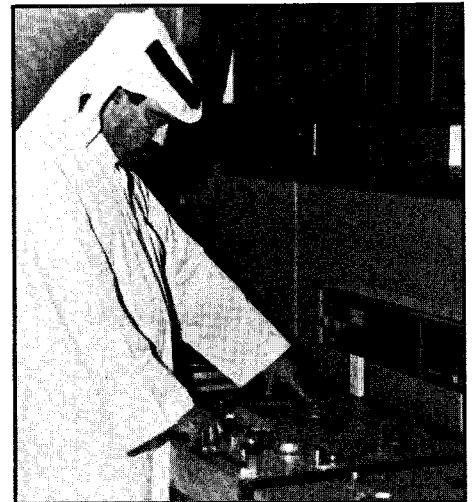
In April of this year, a remodeling project worth SFr. 1.2 Mio. that has been completed under a turn-key contract was turned over to the Ministry of Information in Abu Dhabi. This contract covered all phases of the project such as planning, remodeling, refurbishing, and acoustical redesign of four studios.

The technical equipment includes four mixers STUDER 369, 18 tape recorders A80 RC in mono and stereo versions, as well as 18 turn tables EMT 930/948.



Entrance to radio studio Abu Dhabi.

The installation work was completed in cooperation with an experienced team of Standard Telephon und Radio AG Switzerland. On-site support during the commissioning phase and for the training of the engineers was provided



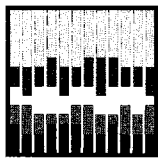
Steady work with the well known STUDER A80RC.

by Antranig «Toni» Yeretjian.

British disc jockeys produce a music program with interspersed commercials in the FM studio "Radio Capital", which can be received in Abu Dhabi and parts of Dubai. The AM studios in which the continuity control room is located supply the 50 KW transmitter of Abu Dhabi.

From the redesign and extension of this studio, valuable experience for other projects of this nature has been gained.





Premier AES Conference:

## The new world of digital audio

**T**he Audio Engineering Society organizes Conventions which are recognized as essential events in professional audio. Urged by the emergence of the new technology of Digital Audio, the Society this year took the bold step of introducing its first AES Conference (while the Convention is both a technical meeting and a commercial show, covering all activities in professional audio, the Conference deals with one single topic via lectures of tutorial and reviewing character, and its aim is to both illustrate and teach the state-of-the-art to members of the community).

Willi Studer was represented – both at the Conference and at the meetings of the AES Technical Committee on Digital Audio – by Dr. R. Lagadec, Product Manager for PCM, who gave a lecture on Studer's digital Sampling Frequency Converter.

The topic in the foreground of discussion today is of course Digital, and the Premier AES Conference accordingly was devoted to The New World of Digital Audio. It certainly managed to reflect some of the characteristics of Digital Audio, both in the good and the not so good sense.

The good news, first. Of course, the conference was superbly prepared, by the AES' highly professional staff. The location – Rye Town, New York – was pleasant, and provided the seclusion necessary for immersion in four very heavy days of lecturing and committee work. Thanks also to the lack of any exhibition, it was possible to concentrate on the lectures.

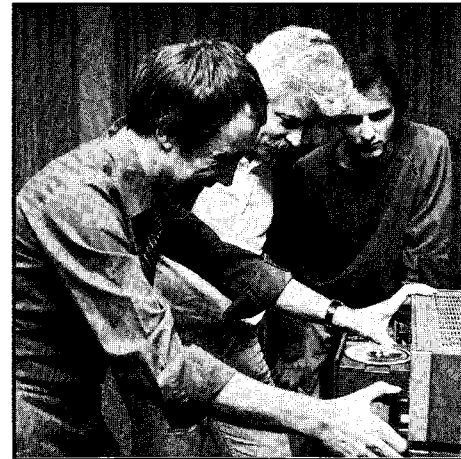
In addition, the Conference profited from the truly admirable efforts (both didactical and otherwise) of both the President of the AES, Dr. Blesser, and the President-Elect, Dr. Stockham. Attractive lectures of a high level and aimed at explaining rather than pushing a product are rare indeed in audio, and the two introductory lectures set standards of quality which were generally not met later in the Conference.

As for the other presentations, they varied wildly in scope and quality, from lucid and practical lectures to shallow and commercial "overviews" to obscure and specialized lectures without any didactical value. A main objective, however, was certainly met: the Conference succeeded in putting today's developments in their correct perspective.

The New World of Digital Audio? The Conference's 200-odd participants certainly offered a wide variety of views as to the market and the technology of tomorrow's audio. Even the fact that less than 200 participants were ready to afford the Conference's fee and the four days of absence from their studios was an indication that there are other problems in the industry than Digital. A particularly provoking (and probably realistic) contribution to the debate was Mr. Temmer's lecture on "the True Costs of Digital Technology" – a sobering reminder that money, rather than signal-to-noise ratio, is the motor of the audio industry.

In summary, the Premier AES Conference on Digital Audio was certainly a bold and positive innovation by the AES. It provided a forum for discussions on one of the most talked-about (though probably not the most important) topics

in audio today. We hope that it will be reproduced, in an appropriate form, in Europe.



Great pleasure with a well done project: Dr. Roger Lagadec, Hans Peter Girsberger (Project manager) and Yves Hämmerli.



### REVOX CD Player Prototype Premiere



**T**he prototype of a REVOX CD player has been exhibited for the interested public at various European fall fairs. The reactions to this fully operational player were positive without exception. The German trade journal, STEREO, wrote in its exhibition review: "The biggest sensation in this respect was caused by Revox, who exhibited for the first time its operational prototype of a Compact Disc player. Except for the Philips players, this is one of the still rare components developed in

Europe." (STEREO 10/1982). The first public exhibition of the CD prototype in the United States has taken place at the AES convention in Anaheim.

In preparation of the hi-fi exhibitions, some CD manufacturers have resorted to much propaganda. However, not all of them adhered strictly to the facts. The consequences are illusions in respect to performance, availability, and prices.

In order to forestal such developments – since they ultimately are detrimental to the whole audio community – our PR group together with the management, the technical director for PCM products, and the artwork department have, within very short time, developed a 6-page brochure in German and English.

This brochure features an illustrated section giving a comparison between the old and the new disc technology, and an explanatory section covering the CD technology. Additional information about the system, the time plans and the attitude of Studer Revox to this subject are outlined in the form of a series of questions and answers.





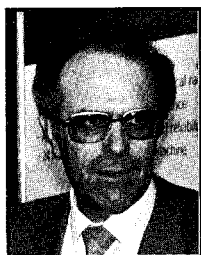
The Studer Group  
of Companies

## «Who is who»

This column will be reserved for introduction of personalities of our affiliated companies and representations in Europe and Overseas.

**T**he first to be introduced has been with Studer for 20 years now, and is well known to most of our readers:

### Eugen E. Spörri



Head of Studer International AG • born 1935 and grown up in Wettingen, Argovia • married, 3 daughters • graduate of School of Trade & Commerce • strong technical flair • great interest in worldwide communications • studies of languages • first business experience in large Swiss company where he acquires skill for later business responsibilities • work for an export-orientated company abroad.

His hobbies are his family, sailing, skiing, reading and, last not least, his work.

In 1962, with a team of three, Eugen Spörri exports at EMT his very first professional Studer equipment – the legendary C 37. Meanwhile, the range of products comprises multichannel machines, studio equipment, mixing consoles with each category available in different versions; the team advanced from 3 to 70!

The period between 1962 and today was ruled by the expansion of worldwide activities, fights for positions in markets threatened by competition, organisational changes within the company – in brief: a lot of work, many worries and also success.

The fact that Eugen Spörri has “made” it numerous times in those twenty years should be credited to his guiding principle he follows closely:

“Nothing in the world can take the place of persistence;  
Talent will not – nothing is more common than unsuccessful men with talent,  
Genius will not – unrewarded genius is almost a proverb,  
Education will not – the world is full of educated erelict.  
Persistence and determination alone are omnipotent. The slogan “Press On” has solved and always will solve the problems of the human race”.

We are convinced that Eugen Spörri will retain the persistence and determination he needs to master the future successfully.

Renate Ziemann

### Hans D. Batschelet to be new president at Studer Revox America Inc.

**O**n november first of this year, Hans D. Batschelet assumed the position of acting president of Studer Revox America Inc., according to an announcement by SRAI president Bruno Hochstrasser.

H.D. Batschelet, who will also continue his duties as vice president of marketing, is primarily responsible for the marketing of all Studer professional and broadcast audio products in the USA.

In January of 1983, Hans D. Batschelet will advance to the position of president of Studer Revox America, at which time B. Hochstrasser will return to Switzerland to serve as product manager for professional recording products at Studer headquarters.



29th Nov. to 8th Dec. 1982

## Workshop Seminar

**W**e announced in the first issue of SWISS SOUND that engineers of Studer subsidiaries and representatives will meet for a workshop at the end of november 1982.

This seminar is addressed to field/sales engineers with deep technical knowledge of our products. This is of importance as an intensive program will be presented, covering not only technical aspects but also communicational and organisational problems between Studer and the sales organisations.

(Since the course will be held in English, reasonable command of this language is essential).

### A few topics of the programmes:

Detailed service course on

- A810 tape transport
- mixing console 900

Briefings:

- A800 MKIII
- B67 MKII (modification)
- A80 (Delay control, up-dating, peripheral equipment)
- Revox PR99 (up dating)

Introduction of new products:

- A710 Cassette Recorder
- Studer Synchronizers
- Studer PCM transports, delay line, sampling frequency converter

### Dear Customer

If you have any queries regarding Studer equipment, please do not hesitate to contact your local Studer agent. He will have an excellent opportunity to pass your requests on to us during the seminar.

Employed technique and technologies – The way Studer products are developed – Detailed explanations of various items and sub-assemblies.

Peter Joss



Spain 1982

## Coverage of the Football cup

**T**he last World Football Cup 1982 took place in Spain from June 13th to July 11th. This time the World Cup increased the number of national teams playing in the competition from 16 to 24; the number of stadia where matches were held to 17, in 14 towns, distributed all over Spain, and a total of 52 matches.

In terms of duration, number and distribution of venues and audience, this has been the biggest sport event covered so far by the electronic media,

and the Host Broadcasting Authority, Spanish Radio and Television (RTVE), had a very strong responsibility in meeting this challenge.



View from operating seat of sound engineer at TV-master control room (Studer 369 special)

More than 150 Radio and Television Organizations from all over the world have covered the World Cup, most of them on the spot, not only to add commentaries to the RTVE's basic multilateral coverage of the matches, but in most instances to produce reports and news programmes of unilateral character to their respective audiences, using RTVE's facilities and services.



A professional improvisation at the production studio of vice world champion Germany (Studer B67 and 169)

These broadcasting organizations, and the Unions forming the Consortium which acquired the broadcasting rights from FIFA, agrees that RTVE has met in an excellent way the challenge, covering the football matches with the highest possible standard, providing outstanding facilities and working conditions to individual organizations and coordinating the technical set-up in such a way that the usual problems in events of this size were minimum.

### Participation of Studer in the investments of RTVE

The Ente Publico RTVE integrated, among other companies, by Television Española S.A. (TVE) and Radio Nacional de España (RNE), is improving the facilities in the established production centres of Madrid, as well as decentralizing the production of news according to a policy of Regional Centres.

The company Studer is one of the major suppliers of RTVE in the field of professional sound, being the first concerning the investments with the occasion of Football Worldcup Spain 1982.

The deliveries from Studer to RTVE during the years 1981 and 1982, through its exclusive agent in Spain Telco S.L., are really relevant, including approximately:

- 18 outside broadcasting mixers 069
- 6 mixers 369
- 12 mixers 269
- 30 mixers 169
- 215 recorders B67
- 70 recorders A80RC

After The World Cup the installations will be finally remodulated to become part of the new concept for transmission and news production for the Spanish TV.

Joaquin Escrib  
Subdirector, TELCO, S.L.

## AES Convention Los Angeles

The first AES "super convention" is now history. The theme of this 72nd symposium, Audio in a changing world, was appropriately reflected by the change in venue, organization and the topics covered.

This was the first year that the new rhythm of only one convention per year rather than two came into effect. For this reason, the undivided interest of the professional audio industry focussed from the 23rd to the 27th of October on the Disneyland Hotel in Anaheim, California. This convention center features superb meeting and exhibition facilities and thus is eminently suited for meetings of this nature. One additional change from the previous exhibitions was certainly welcomed by the manufacturers: on Saturday (opening day), the exhibition was open from noon until 9 p.m. and did not have to compete for attention with lectures and workshops. Also on Monday, the exhibition was open until 9 p.m. This extended schedule made it easier for the exhibitors to justify their efforts in terms of organization, stand construction, and equipment on display.

Of special interest were also the organized workshops and for our manufacturing program specifically one covering the topic "Trouble-shooting in Recording Studios; Tape Machines". Our readers can expect to soon find detailed information on these subjects in the corresponding professional journals.

STUDER REVOX AMERICA, INC. participated at this convention with one of the most comprehensive ranges of products and systems. Especially in the field of digital audio, the visitors to the 120 square meter stand had the opportunity to discover a few "firsts". In addition to the digital tape machine A804, the digital pre-listening unit DAD-16 and a prototype of the REVOX CD player were also shown in operation. The previously introduced but world-wide still unique sampling frequency converter SFC-16, again attracted much interest.

On the analog side, the new professional cassette tape recorder STUDER A710 drew many visitors to the stand.

Since this AES convention was held close to the American film metropolis, Hollywood, it is understandable that our complete system for video dubbing with synchronizer received considerable attention.

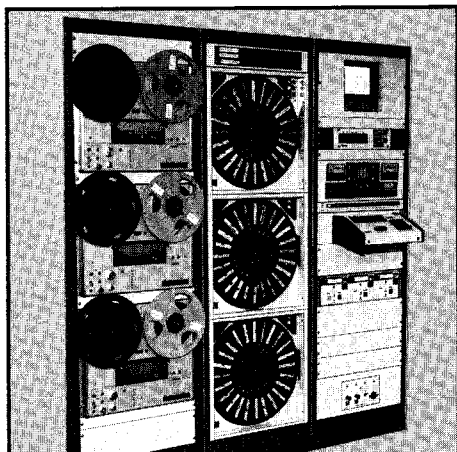
But also other special equipment used by the film industry such as the A80RC-PNFMVU, the A80/VU-4 with resolver, and the B67 mono version with resolver, model PNVUK, captured the attention of the visitors.

Considerable interest was generated by the A810 which for the first time was presented in the complete line. Especially the new console version was well received.

The presence of STUDER at this exhibition was further increased through the fact that many manufacturers of professional audio equipment relied even for the demonstrations during the exhibition on the proverbial reliability of STUDER machines. So STUDER 24-track tape recorders (A80VU/A800) were employed by solid state logic (ssl), Harrison, Neve and Melkuist while Audiotronics, Lexicon, Audio Kinetics, Bruel & Kjaer, 3M and others used Studer 1/4" recorders on their stands.

With such a lot of equipment it isn't much of a surprise that a 45ft trailer had to be hired for the journey over 2000 miles from Nashville to Anaheim.

## ... in brief ...



★ Revox PR99 reproduce only in automated broadcasting

This photograph illustrates an installation designed and built by SONO-MAG Corporation in the United States.

### REVOX a leader also in JAPAN

In this year's "Recorder Rankings" of the Japanese audio journal "Tape Sound", the Revox tape recorder PR99 1/2 track and B77 MKII 1/4 track have been selected for the top position in their category.

### Students visit Studer

Providing the opportunity of comparing the theories advanced at university level with the practice of a world-wide active, export-oriented industrial company was the basic idea behind the visit of students from the St. Gall Graduate School of Economics, Law, Business and Public Administration at Studer Revox.

After the marketing-oriented students had been introduced to the Studer Revox Group, our marketing methods and the organization of our world-wide distribution network was explained in order to demonstrate to them, how we reduce theory into practice. This was the basis on which we advocated to the students that an efficiently managed company must beware of getting lost in abstract theories.

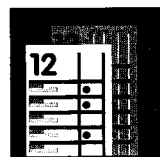
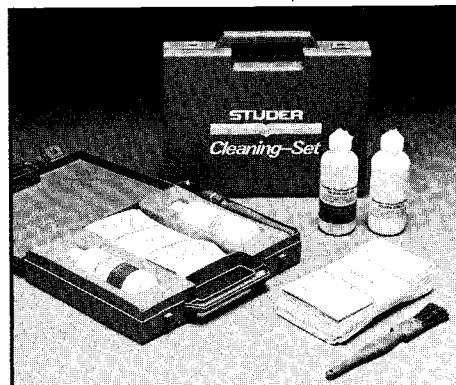
A demonstration of the Revox Audiocard system as part of the visitors's program provided ample opportunity for interesting discussions concerning the application of this system at colleges, universities, etc.

After a tour of the manufacturing facilities during which the assembly of a Studer tape recorder was demonstrated, the visitors had the opportunity of seeing our equipment in action in a well-known film studio in Zurich. In our view, activities like these make a positive contribution towards convincing the students at a relatively early stage that scholastic philosophies may frequently be far removed from actual practice in the hard everyday life.

Eugen E. Spörri

### All new CLEANING SET by STUDER.

Cleaning fluids for heads and anodised surfaces. Dust brush and fleeces. Complete with case. Order Number 10.496.010.00. Refilling bottles available.



### Coming events

1983 March 15 - 18: AES Eindhoven, NL  
73rd AES Convention/Exhibition

1983 May 28 - June 2: TV Symposium  
Montreux, CH

### Official Presentation of the Professional Tape Recorder STUDER A810 in France

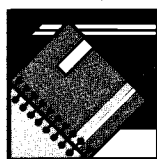
Press and professionals were invited to see the new Studer professional tape recorder A810; the introduction was organized by Studer France Sà.r.l.

The presentation took place at SOFITEL Hotel, Paris, where the various versions of the STUDER A810 were demonstrated. In addition to other products of our range, the Cassette Deck A710, the new mixing console 900 and the autonomous telephone system caught great attention.

After a press conference, Dr. Willi Studer answered numerous questions of journalists and interested professionals. A series of technical conferences familiarized 280 visitors with the advantages of new STUDER technologies.

A successful event for both STUDER products and STUDER France as the organizer of the show.

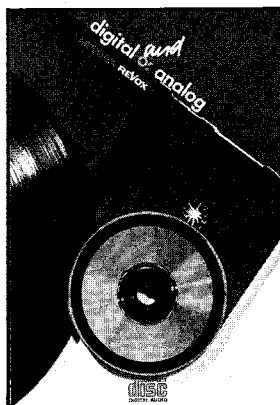
Jean Pascal Ruch



### From the printers

Brochure  
CD-technology:  
"digital or/and  
analog"

18.504.882



- 23.824.1082 **SFC-16**, PI 6/82 (e)
- 23.825.1082 **A808**, PI 7/82 (e)
- 23.826.1082 **DAD-16**, PI 8/82 (e)
- 23.822.0782 **Remote counter A80/B67**, PI 4/82 (d/e)
- 23.823.0982 **Mixing consoles 900**, PI 5/82 (10.85.0510 f)
- 23.325.0382 **A 800**, Informations (d/e)
- 23.190.0982 **STI-Product survey** OI (d)
- 23.191.0982 **STI-Product survey** OI (e)
- 23.302.0982 **STI-Product survey** OI (f)
- 23.349.0982 **STI-Product survey** OI (Sp)
- 18.493.1082 **PR 99**, Leaflet (f)
- 23.295.0582 **A810**, Prel. OI (e)
- 23.278.0982 **Autolocator to A80**, OI (d/e)
- 23.298.0982 **Autolocator to A800**, OI (d/e)
- 23.297.0982 **SFC-16**, OI (e)
- 23.343.1082 **Audio remote control A80**, SD (d/e)
- 23.344.1182 **Audio remote control A800**, SD (d/e)
- 23.500.0682 **B67 MK III**, OI and SI (d/e)
- 23.266.0682 **A800**, SI (d/e)

PI = Product information  
OI = Operating instructions  
SD = Set of diagrams  
SI = Service instructions

Sets of diagrams, operating and service instructions available for a nominal charge.



### Positive: Feedback

Our postman didn't exactly break down under the flood of letters that came in after the first edition of SWISS SOUND, but we took much pleasure in the universally positive reactions and the reorders from our distributors throughout the world. We shall do our best in incorporating the many suggestions into our work and in general shall continue in the style we have started.

"Keep those letters coming!"



**Please mail your letters to:**  
SWISS SOUND, STUDER REVOX Public Relations  
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**Editorial staff:** Marcel Siegenthaler,  
Bruno Ochsner, Massimo Schawalder  
**Art and production:**  
Hanspeter Deutsch, Lorenz Schneider  
**Publisher:** Studer International AG, Althardstrasse 10, CH-8105 Regensdorf, Switzerland  
Telefon 01/840 29 60 · Telex 58 489 stui ch.

Reprint permitted with reference to SWISS SOUND

Printed in Switzerland by WILLI STUDER  
23.821.1182