



International Society of Biomechanics Newsletter

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AFFILIATE SOCIETIES OF ISB:

American Society of Biomechanics; Australian and New Zealand Society of Biomechanics; Brazilian Society of Biomechanics, British Association of Sport and Exercise Sciences; Bulgarian Society of Biomechanics; Canadian Society of Biomechanics/Société canadienne de biomécanique; Chinese Society of Sports Biomechanics; Comisia de Biomecanica Inginerie si Informatica (Romania); Czech Society of Biomechanics; International Society of Biomechanics in Sports, Japanese Society of Biomechanics; Korean Society of Sport Biomechanics; Polish Society of Biomechanics; Russian Society of Biomechanics; Société de biomécanique (France), Taiwanese Society of Biomechanics.

ISB President's Message

Every scientific society has to question its purpose and primary goals, and the International Society of Biomechanics (ISB) is no exception. When I started in biomechanics, I had to go and study in a foreign country, because biomechanics, as a recognized field of graduate studies did not exist in my native Switzerland, and neither did a "Swiss" society of biomechanics. Attending the ISB bi-annual meetings was virtually mandatory as it was the only international conference dedicated to this field. Much has changed and thus the question of who we are and what we represent needs to be asked and everybody will have a slightly different answer.

As president of the ISB, I needed to have my own view of ISB and what it should stand for and what its main goals should be, because once that question is answered, actions to achieve the goals would follow from the purpose. I see the International Society of Biomechanics as the organization that leads the international efforts in biomechanics research, and fosters biomechanics research and education around the world. It is the *mother* supporting and promoting its many affiliated national societies and specialized biomechanics groups. In order to achieve some of these goals, I have tried to support as much as possible efforts of internationalization and promotion of biomechanics world-wide.

In the past year, and with the tireless effort from Eduska Laurens (student representative on the ISB executive council) and Li Li (ISB member), we organized implementation of two biomechanics laboratories with 3d motion analysis and force platforms in one case, and a 3d motion analysis system, pressure system and EMG in the other case for Universities in South America. The estimated contributions to this effort by industry were in excess of \$US 200,000 and the ISB covered shipping costs and installation and training programs in South America to the extent of approximately \$US 30,000.

Furthermore, in 2008 I ran a president's initiative to support a keynote lecturer for each of the affiliated societies. The ISB contributed \$US 2,000 for an ISB member to attend a conference of an affiliated society and present a keynote lecture. Four of the affiliated societies (The Korean Society of Sport Biomechanics, The Chinese Society of Sport Biomechanics, The Hellenic (Greek) Society of Biomechanics, and the American Society of Biomechanics) took advantage of this offer to sponsor international keynote lecturers. Furthermore, under the same program, the ISB also sponsored one Young Investigator Award for each of the affiliated societies up to a \$US 500. Three of the affi-

liated societies took advantage of this offer and this initiative led to many new interactions and connections with our affiliated societies, and thus will be renewed for 2009.

Therefore, any ISB affiliated society is eligible to apply for support of an international keynote lecturer (who must be an ISB member) and for an ISB sponsored Young Investigator Award for their 2009 conference. As for 2008, support for a keynote lecturer will be up to \$US 2,000 and for the Young Investigator Award up to \$US 500. Applications will be dealt with on a first come first serve basis and can be made directly to the president of ISB by email (Walter Herzog; walter@kin.ucalgary.ca).

On a different note, I would like to remark on two decisions made by the executive board at its last meeting in August 2008. The first decision was regarding the 2011 Conference of the International Society of Biomechanics. After several years, the 2011 conference will be going back to Europe (Brussels). Four excellent bids were made for hosting the 2011 conference, indicating the interest in hosting this meeting. I would like to thank Julie Steele (president-elect ISB) for making this a fair and transparent process and for being able to elicit such excellent bids.

The second decision was associated with reviewing nominations for honorary membership of the ISB. Honorary membership is restricted to people who have made outstanding contributions to the development of biomechanics. Presently, there are nine living honorary members, and we accepted the nominations for the following four individuals:

Jacqueline Perry

Peter Cavanagh

Doris Miller

John Paul

Congratulations to these individuals who have all been pioneers of biomechanics research and education.

Last but not least, I would like to thank Kit Vaughan for his efforts in organizing the 2009 ISB conference in Cape Town, South Africa from July 5-9

www.isb2009.org

Kit gave an update on his progress with the conference organization and I would like to invite all of you to attend what promises to be the premier biomechanics research gathering in 2009 in a unique and exciting part of this world.

I am looking forward to seeing you all in Cape Town

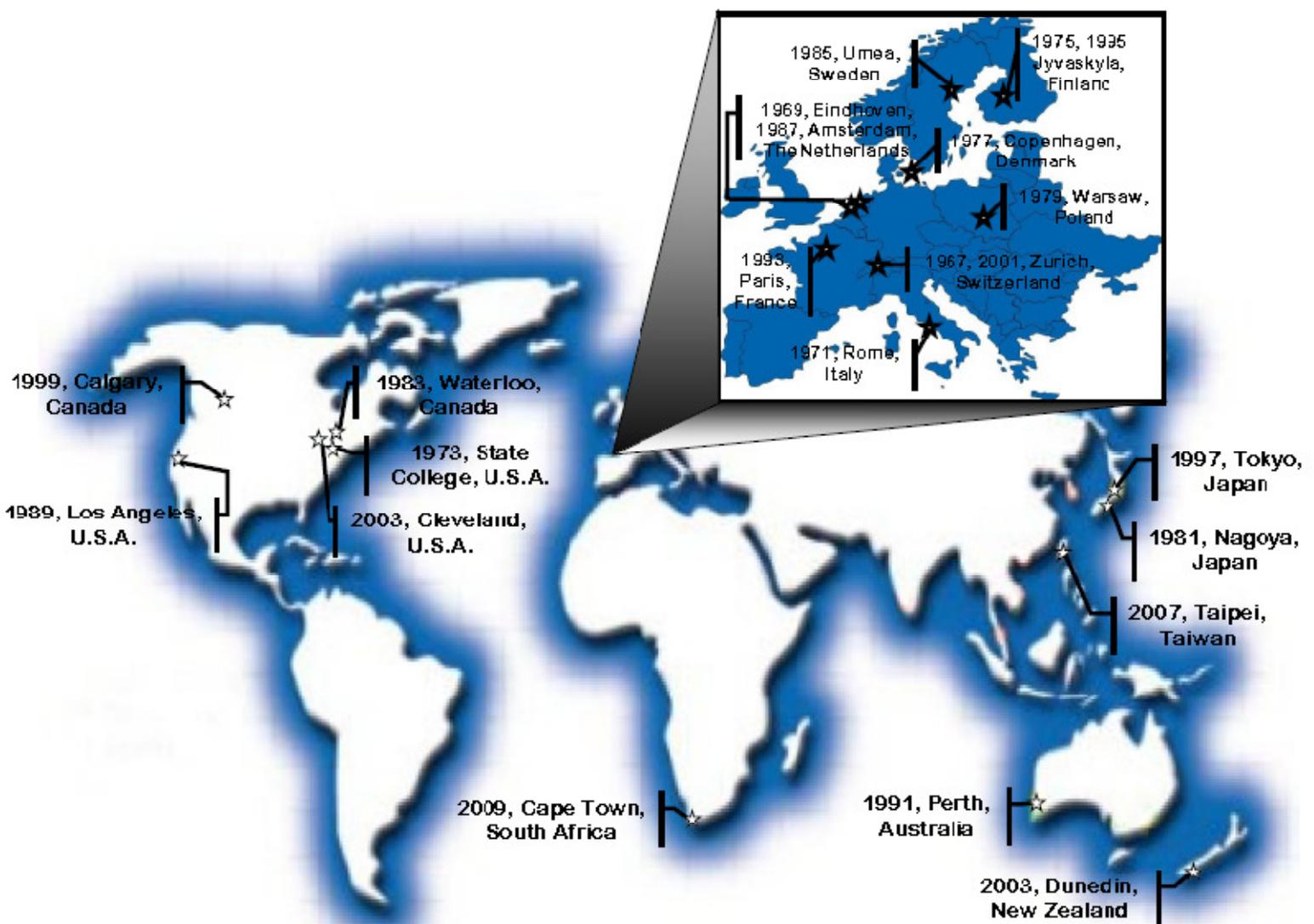
Walter Herzog

Geographical history of the ISB

Every second year one of the most exciting issues on the agenda of the ISB council meeting is to decide where the next ISB conference should take place. ISB is striving to be a truly international organization and therefore a certain balance in the geographical distribution of the conference hosts is attempted. However, it is also a major effort to organize a conference with the present size of approx 1000 participants. So this requires a number of local active research groups working within biomechanics and being willing to put in some work for both the practical and the scientific management of the conference. In addition, there is the economical risk, so it needs to be a place that can attract a suitable number of participants.

Over the years the choices of conference places have been different from year to year, some years there have worked intensively to have just one or two proposal and in other years there have been a large selection of attractive suggestion. It is therefore interesting to see the broad geographical distribution of ISB-conferences. Even though the highest density is found in Europe there has been a certain shift between continents. And it is a pleasure that next year also Africa will be represented, we may in the future work on having South America on the list. Enjoy the map below, prepared for you by John Challis, the ISB Archivist.

Karen Sogaard



Obituary - Alex Stacoff, PhD



We are still in shock that our friend and colleague, Alex Stacoff, is not with us anymore. Due to a cardiac problem, he died while running, his favorite leisure-time activity,

Alex was born in Zürich, Switzerland in 1950. He had a teacher's degree when he started his academic career at the Biomechanics Laboratory in 1975, initially as a research assistant. He was excited about the possibility to do research related to running and physical activity. After a few years as a research assistant in the Biomechanics Laboratory at the ETH, he decided to do graduate work with Jim Hay at the University of Iowa from which he graduated with a master's degree (1982). A few years later, his contributions to the biomechanics community was recognized as , he received an invitation to do a PhD degree at the University of Calgary under the supervision of Benno Nigg. He accepted this new challenge and finished with an excellent and well recognized thesis on "Skeletal Lower Extremity Motions", a bone pin study (1998).

Alex's initial research was focused on running with and without shoes. He was at the heart of the development of the torsion concept and was highly respected in the academic and industrial footwear community. This recognition is documented by a series of keynote and invited lectures that he gave all over the world. Running and shoe research was his world and expertise and he was always happy and excited while debating these topics with colleagues and students. His later research contributions focused on walking with knee and ankle prostheses and foot mechanics including foot function, foot morphology and intrinsic foot motion, concentrating especially on children's feet. In this context he was involved in the formation of the i-FAB and their first congress in Bologna.

Since 1990, Alex was a Senior Lecturer and Research Associate at the Biomechanics Laboratory of the ETH Zürich. He was an outstanding teacher who could explain basic and applied knowledge well and he excited many young students for the field of Biomechanics. Many of his former students are now respected young scientists all over the world. The major characteristic of Alex in his teaching activities was that students liked him as a friendly, supportive and challenging teacher who had always the students' well being in mind. His advice to graduate students was always constructive and it is no surprise that comments about his generous personality were the dominant descriptions we received after he passed away.

In recent years, Alex served on the ISB executive board in various positions, the latest as the Secretary-General. Like everything in life, he performed his duties conscientiously and meticulously and never complained about the little details that always needed attention. It was with concern that we received the information from Alex that he wanted to retire from this position for health reasons in June of this year, and although he was not sure why he felt such tiredness, he was concerned and wanted some rest and peace from the demands of a busy professional career. In hindsight it almost appears as if he might have known that time was limited and that focus was required.

Alex's life was not without challenges. He had a fight with cancer and lately had some problems with his lungs. However, in all situations, Alex was optimistic, accepted the challenges and used them to become a better person. And in all the challenging situations, Alex remained helpful, supporting students, colleagues and his family.

It is hard to say goodbye. It is hard to say goodbye to an outstanding colleague, a special friend and a fine man. Alex, thanks that we could be your friends,

Walter Herzog
Benno M. Nigg
Univ. of Calgary, Canada

A tribute to Alex from ISB council members (past & present)

Those of us who served on the ISB council with Alex came to know him as a very special person, and feel an extreme sense of loss in his sudden passing.

Brian Davis: For much of the time I have served on the ISB Council, I have had the privilege of working with Alex. He co-organized the ISB meeting in Zurich, handled the ISB student grant program wonderfully, selected tutorial speakers for ISB congresses, and was always a positive and steadying influence on Council. Many biomechanists around the world were influenced by his decisions---even though they may not know it!

Karen Søgard: Alex was a good friend and always there to help with anything that you would ask him for. He kept his health problems to himself, and I did not realize that they were so serious. It is really hard to understand that he is no longer there. I enjoyed having meetings that included Alex because he was enthusiastic, participating, alert and always with a touch of humor and twinkle in his eyes. He was always thinking of the students' benefits from ISB-initiatives but also fair to ISB. As expressed in his comment about the travel grants: "First you join the club and then you travel with the club." This was Alex explanation, why you had to be a member in order to to apply. Alex and I had some long walking tours in Herzogenborch in the Netherlands where I really got an impression of his keen interest in his research area and how devoted he was to fostering good students. I will truly miss him as a friend and as a devoted ISB-colleague.

Mary Rodgers: When I was President, I wanted to hand over the ISB student program to someone who was passionate about student education, and Alex was clearly such a person. He made sure that all aspects of the program were completed at high standard that provided fair decisions. During runs with Alex, we discussed a range of topics from the world of biomechanics to life values and priorities. He was a very special person.

Julie Steele: Many of us are still struggling to come to terms with the sudden loss of Alex, both as a colleague and a true friend. Although we will all miss Alex very, very deeply, we will also cherish extremely fond memories of the special

time we spent with this gentleman. At the numerous Footwear Symposia we attended, Alex often sat back listening intently as we all chatted, adding his words of wisdom or amusing anecdotes and humorous facial expressions when discussions became too serious. He was passionate about his foot function and footwear research, always encouraging collaborative studies but striving to ensure these collaborations were underpinned by rigorous research. Alex was quietly proud that he strove to publish a steady flow of high quality articles each year, each in internationally respected journals rather than fall into the trap of pumping out lower quality manuscripts. He was equally passionate about treasuring life experiences – enthusiastically taking on the challenge of a surfing lesson in the middle of Winter when visiting the Biomechanics Research Laboratory (BRL) in Wollongong! All of us in the BRL here will deeply miss the warmth, friendship and guidance that Alex extended to our group, as he has done throughout the biomechanics community elsewhere around the world.

All of us on the ISB Council (past and present) remember Alex as an outstanding colleague and researcher and someone who will be sorely missed.



Outcome of the ISB Student Grants Program at NACOB
Ediuska Laurens, Ph.D. Candidate, ISB Student Representative

As announced in previous newsletters, ISB had the opportunity to organize the “ISB Student Grants” program at the North American Congress of Biomechanics (NACOB) this past August in Ann Arbor, Michigan. The program was designed to provide students with more detail information about how to apply for “FREE MONEY” or the ISB Student Grants: **International Travel Grant, Congress Travel Grant, and Dissertation Grant** as well as the opportunity to meet potential mentors from around the world, for which we had representatives from North and South America, Europe, Africa, Australia, and New Zealand (**pictures below**). Additionally, the students learned about Biomechanics in EL Salvador.



At this session, the students interacted on a one on one basis with the mentors, and many of them were able to arrange future collaborations and visits to different laboratories around the world. After the program, I heard from several student participants, both in person and through email, of how useful this program was to them. Therefore, ISB will continue supporting and organizing more programs that will benefit and promote the progress of the future generation of biomechanists. With this in mind, we would also like to encourage the students to submit their ideas about potential programs or sessions that they think ISB can assist and organize for the students, especially for the next ISB Congress 2009 in Cape Town, South Africa. Please, contact the ISB Student Rep. at laurene@ccf.org.

Would You Like to Be the Next ISB Student Representative?

Ediuska Laurens, Ph.D. Candidate, ISB Student Representative

As all of you know, ISB members vote to elect the ISB council every two years, and the next elections are in early 2009. As the current ISB student representative, I have been assigned the task to select the nominees for the student representative position in the upcoming elections.

Serving on the ISB executive council as the student representative has been one of the most rewarding experiences I have had as a graduate student. I have not only been able to enhance my knowledge in biomechanics at the international level, but also to organize and execute projects ranging from the creation of a mentoring program on the ISB website for the student members to the most elaborate of establishing a gait laboratory in Venezuela on behalf of ISB. However, how little or how much you want to take advantage of this position and make a difference in the international biomechanics community, it is solely up to YOU!

Therefore, if you are enthusiastic and up to the challenge, please email me and let me know why you would like to be the next ISB Student Representative.

Best wishes,
Ediuska Laurens
laurene@ccf.org

2009 International Society of Biomechanics Conference

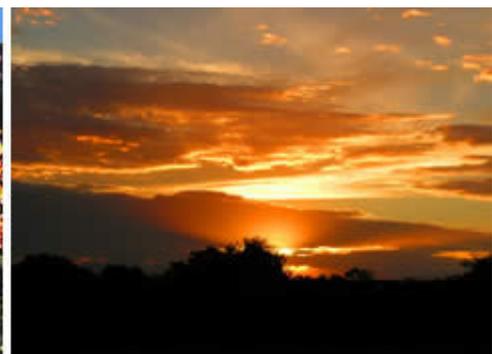
Welcome to the XXII Congress of the International Society of Biomechanics
to be held in Cape Town, South Africa from 5th to 9th July 2009

Abstract Submission will go 'live' by 31 October 2008

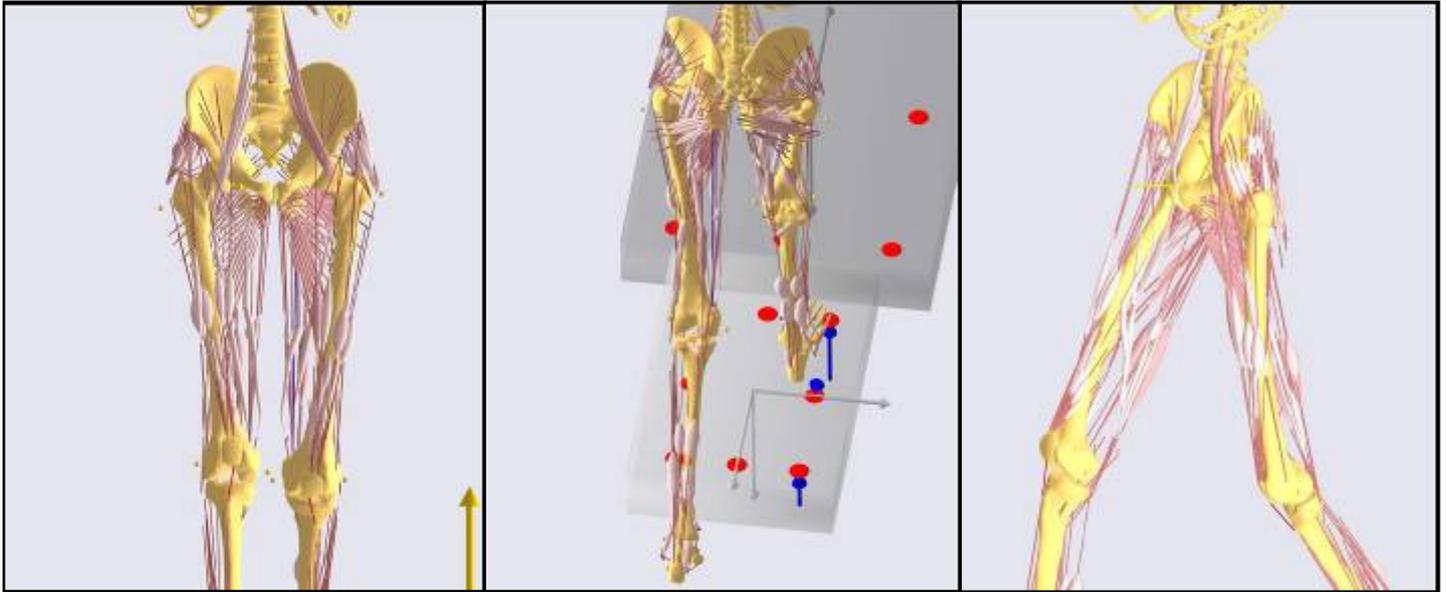
Deadline: 15 February 2009

Visit the webpage:

<http://www.isb2009.org/index.htm>



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A pre-release of the model driven by gait data is currently available from the AnyBody Technology website.

Visit our website at www.anybodytech.com for more information.

Or contact us at anybody@anybodytech.com for inquiries on sales and services.

(*) M. Klein Horsman et al.; Clinical Biomechanics, 22, 239-247.

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Note from the Editor

Please note that the deadline for the next Newsletter is 1st of December, 2008. Hopefully, the next issue will focus on our new honorary members. If you have contributions regarding this topic, please send an E-mail to the editor on ksogaard@health.sdu.dk.

ISB Council Appointment of Secretary-General

Dr. Toni Arndt from the Karolinska Institute in Stockholm has been appointed to the ISB Council position of Secretary-General.

Gaining international experience during his studies, Toni Arndt initially completed a BSc (Biology) at the University of Auckland, New Zealand; an MSc (Human Movement Science) at the University of Wollongong, Australia; followed by a PhD (Biomechanics) from the German Sport University, Germany. He is currently an Associate Professor in Biomechanics and Director of Studies of the Podiatry Program, at the Karolinska Institute, Stockholm, Sweden. Toni's research interests include 3D kinematics of individual bone segments in the foot, mechanical loading and strain in the Achilles tendon, muscle physiology related to Achilles tendon mechanics, tendon rehabilitation, footwear biomechanics, and prosthesis biomechanics. He has been a member of ISB since 1992, and has strong involvement in the ISB Footwear Biomechanics Group, being a member of their Executive Council since 2005.



TEKSCAN Donation arrived in South America **Ediuska Laurens, Ph.D. Candidate, ISB Student Representative**



The International Society of Biomechanics is thrilled to announce that Teckscan, Inc. has joined ISB's efforts to foster biomechanics around the world by donating their **MATSCAN**, a floor map-based foot pressure and force measurement system, to Los Andes University (ULA) in Merida – Venezuela. The donation included shipping and taxes, and it has been estimated to a value of over **\$10,000**. The ULA received the equipment this past September, and the biomechanics students and researchers at this university could have not been any happier! Anyone could literally feel the excitement through their emails thanking ISB and Tekscan. The Matscan will aid the students and professors to improve their ability to assess foot function and biomechanics, thus facilitating and enhancing their biomechanics research and education in a country in which the biomechanics field is just beginning to develop but with very little resources. Hence, ISB thanks Tekscan on behalf of the biomechanics students and scientists at ULA, as this donation will greatly impact and benefit the advancement of biomechanics in this region.

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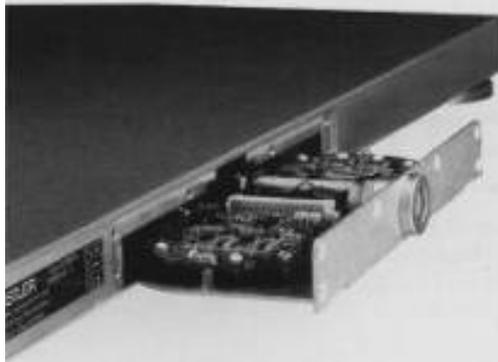
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