

Return of the Accordion, The Sequel

Chapter Three: **VISION BECOMES REALITY**

By Ron Schwarz, Editor, *Sharps and Flats*

Monthly Newsletter of the ACCORDIONAIRES, Accordion Club of Los Angeles



As you have read previously the Roland “V” accordion line is, in this author’s opinion, the backbone of “the return of the accordion.” In our original article we discussed the meaning of “the return of the accordion.” This phrase refers to the accordion regaining the widespread acceptance and use it enjoyed until the 1960’s. As many of you can remember, virtually every large band included an accordion; there were dozens of “accordion” bands in the US and many more in Europe; there were thousands of music schools that taught

accordion and thousands of local groups involved in accordion competitions. Concurrent with the momentum of rock music in the 1960’s the electric guitar took the spotlight formerly enjoyed by the accordion. However the technology developed for electronic and digital instruments since the 60’s has actually played a part in the realization of the Roland “V” (virtual) accordion. Roland has embraced the digital revolution and built an accordion that rivals any digital instrument in existence today.



The goal of this article is to understand how, and why, Roland dedicated millions of man-hours and dollars to the success of the “V” accordion. Additionally we’ll review technical aspects of this project that have made the musical abilities of this instrument so realistic and adaptable to any type of music presentation. We are grateful to Mr. Ikutaro Kakehashi (left), founder of Roland; Mr. Luigi Bruti (right), Roland Europe, and Mr. Ron



Lankford (left), “V” Accordion Coordinator for their generous input and sharing of information. Let’s start by going back to the 1960’s and learn how at a time when the accordion’s popularity was waning in the US, in Japan a love affair with the accordion was just beginning.

Ikutaro Kakehashi, as a young man, had a dream: build an accordion, an electronic accordion, one with more features and less weight than its acoustic counterparts. It’s 1964, the venue--the NAMM show Los Angeles, Ca. Mr. Kakehashi presents his first electronic creations to the music industry. While at the show he meets various Italian accordion manufacturers and tells them about his dream of a completely electronic accordion. At that time the Italian folks were skewed towards the traditional acoustic accordion, and could not imagine why an electronic version would, or could, be a commercial success. Three years later Mr. Kakehashi’s travels take him to Italy and the holy grail of accordions, Castelfidardo. He visits various factories and distributors hoping to find a way to incorporate common parts of acoustic instruments with his electronic vision. He, however, leaves Italy with

two accordions that caught his eye and ear, but without any success finding a partner to his vision.



Mr. Kakehashi establishes The Roland Corporation in 1972, and the growing Roland product line keeps him fully occupied leaving his accordion dreams resigned to a project for some day in the future. Years later the dawn of that day arrived in 1988 when the SIEL company, a manufacturer of electronic musical instruments, located in Acquaviva Picena, Italy, became Roland Europe (left). Chief engineer, Francesco Rauchi, and Luigi Bruti lead the technical staff in Roland Europe's production of the "KR" digital piano and arranger keyboards titled the "E", "G" and "VA" series. Mr.

Bruti while a technician by occupation is also a virtuoso accordionist (1977 World Champion, 1976 Italian National Champion). Luigi envisions a future for the accordion that goes beyond adding midi to the acoustic instrument. He and Francesco Rauchi share their futuristic ideas with Roland Japan to estimate the feasibility of such a project. Mr. Kakehashi tells them about his own plans, and as they discuss their theories and goals it becomes apparent their dreams are about to take the first step towards reality.

The reality was closer than ever before because of technological advances such as Physical Behaviour Modelling that had already been applied to other instruments such as the V-Guitar module. They felt certain the sound engine from previous Roland projects could be modified to mimic the nuances of traditional accordions. A traditional acoustic accordion uses the principle of free reeds vibrating from the air flow generated by the bellows. The action of the bellows is therefore a core feature of this instrument. The Chinese created the first instruments to use this principle about 4,500 years ago, and the accordion known today was developed in the 1850's. Most acoustic accordions provide a pair of metal reeds for each note (one reed vibrates from the bellows as they open, and the other as the bellows close—each motion causing the airflow to reverse). A series of reeds makes up a voice (such as the clarinet) and are placed on a frame called a "wind chest". The Roland Virtual Accordion would produce these effects by digitally reproducing the sounds. Using miniaturized electronics the Roland unit would be designed to have all the features, but weigh less and cost less than a standard accordion with a fraction of the same abilities.

On 5th December 1995 the project received official corporate sanction. Roland spent the next nine (yes, 9) years studying the sounds of the acoustic accordions to be emulated, and to choose the mechanical and electronic parts also needed to create the "V" accordion. The first step consisted of collecting all sorts of accordions from the world over, followed by detailed study of their features and digitally reproducing their operation using Physical Behaviour Modelling technology. This new kind of sound generation made it possible to reproduce all the physical sounds the accordion created as it moved as well as the tones produced by the vibrating reeds driven by air modulation in response to the motion of the bellows. Moreover this technology further made it possible to group multiple accordion types into a single instrument. The accordion player was immediately in control of a French

accordion, or an Italian accordion, or a traditional (old time) accordion, or a jazz accordion, and many more—all available by a simple push of a button.

Thus the vision of the “V” accordion was an instrument that had the voices of many different accordions in one unit and to use its digital, music oriented technology to link the “V” accordion to multiple styles of music that appealed to generations of music lovers. The goal was to attract people of all ages and backgrounds to the new, versatile “V” accordion.



Dark Gray

Outwardly the result, the Roland FR-7 (at a first glance) looks like a traditional instrument with function switches, grill, keys and body familiar to everyone. But years of study by Roland engineers have resulted in bellows movements and key sensitivities such as velocity and after-touch feeling “normal” although the mechanical parts of the “V” no longer physically create those sensations. Additionally unlike a traditional accordion the “V” player also commands

synthesized voices such as a sax, clarinet, guitar, piano, organ and the ability to arrange them with accordion sounds. With hundreds of combinations of live, sampled, digitally recorded sounds the FR provides any musician with the tools necessary to present a performance that will delight and intrigue the audience.

You may be wondering why the “V” accordion uses the “FR” designation. “F” and “R” are Francesco Rauchi’s initials, and shown as homage by Roland to one of their beloved developers. Sadly Mr. Rauchi passed away without seeing the project reach its final implementation. It was 40 years after Mr. Kakehashi’s first vision of a fully electronic accordion that the Roland FR7 was introduced at the 2004 Frankfurt Music Fair. Roland’s competitors were stunned by its portability enabling the musician to move about freely playing multi-timbre parts enhanced by the expressiveness of its bellows and physical behaviour modelling technology.

The new world of the “V” accordion is indeed international with performers using Roland accordions on all continents. At the same time the Roland Europe team continues to improve and expand the model line up. This vision, a dream that took 40 years to come to fruition, is testament to the attraction of the accordion. Any accordion player you ask will tell you they love the sound—there is something that draws one closer to hear more. The “V” accordion offers a huge array of traditional sounds along with true orchestral sounds melded into a single instrument that meets the challenges of both professional and hobby musicians. The accordion is back, and its middle initial is “V”.



Check ROLANDUS.COM to see the entire “V” Accordion Family

