THE E-PLAYER

This page is dedicated to the electronic interface for pneumatic players. Keep checking back, as we plan to add more pictures and information.

WHY PNEUMATIC TO BEGIN WITH?

Those who know the facts about the many facets of superiority of pneumatic players also know that only the pneumatic players debuted in concert grands, along with internationally known virtuosos at Carnegie Hall, which then toured other great theaters across the country and the world. It was a challenge to music critics to tell which was playing-- the piano, or the artist. If it was like that then, it is still like that, today.

These were called “Comparison Performances,” and were very entertaining and popular. Much later, a brilliant engineer named Wayne Stahnke invented a player system using large, powerful solenoids capable of powering the concert Bosendorfer on the concert stage, and has produced several CDs of that performance through Telarc. These performances recreated Rachmaninoff’s own Ampico recordings which the original Knabe Ampico concert grands played two generations earlier. Ask for Telarc, “A Window In Time,” series. CD-80491 and CD-80489. If you would like to hear the original Ampico rolls played again, this time to their full brilliance, just the way they sounded during the heyday of pneumatic reproducers, then these CDs were made for you!

What does this fact have to do with player piano interfaces?

THE PERFECT MARRIAGE

The marriage of electronic media to the pneumatic player through the MIDI system is truly the best of both worlds because it does not change or in any way ruin the antique value of these awesome instruments. Instead, it allows the owner to play a powerful, original instrument again to its full capabilities and beyond. Unrestricted in its capability to play rolls, it is now able to have a library of ultimately tens of thousands of rolls (which we call e-rolls) only a click away.

A single small electric cord from the piano leading to a computer somewhere is all that is required to make the connection to unlimited musical experiences. One day, all formats of original paper rolls will be able to be played on practically any other format, converted by software and limited only by the imagination and the time constraints to do it all.

This is the marriage of pneumatics--the most reliable, time-tested, repairable, full power system ever to be placed into a piano-- with the most logical media source ever designed, able to locate e-roll music in a split second and play it instantly, live, on your piano.

ULTIMATE CONVENIENCE AND REFINEMENT

Imagine sitting down for a few minutes and assembling an all-Chopin program, or all-Irving Berlin program simply by telling the computer to find and display everything you have which is written by those composers. Or perhaps you want to listen to the songs played in person, live, on your own piano by practically any artist you can ever recall, even including the latest artists? Well, this system will eventually allow you to do this, too. Suppose you would like to compare an original roll of a certain tune to its e-roll equivalent? That's easy and instantaneous, now. Or, with all the new paper rolls available and newest arrangements, you want to play paper rolls that there are no e-rolls made of as yet. And of course, there are no "conversions" to make, or heavy device to fit and to remove again and again on and off the tracker bar.

MUSIC-- IN A WORD

Regular upright player pianos fitted with a suction box will be able to be automatically turned on and off by this system and bring to your instrument an unlimited number of songs. And some day, with words. It's all able to be incorporated into a sort-of "Karoke" style music system which syncs the words to the music. And the owner will be able to put words to music and display them.

Let's suppose you own a coin piano, or a band organ, or a room full or orchestrions. You hang a scrolling sign up, or place a large TV, or several of them, around the room. When any instrument plays, there in the monitor or on the sign are the words to the song, rolling along or following the bouncing ball! All of this is now possible. The renewed interest in this music is going to be electric. You will have something concrete to relate to. The rationale of the tune is in the words.

UNIVERSAL APPEAL

Suppose you drop a nickel into a coin piano slot. It takes off playing, xylophone, mandolin rail, pipes, and you wonder what that song is. Well, no longer. The name of the tune is not only initially displayed, but the coin trips the midi interface-- which has a coin counter and power circuitry already included in it. By itself, it takes the switch contact provided by the original coin drop and actuates a musical program preselected, all of which have words, or a message to present. This feature is not yet available, but in the works, and as I understand it, it won't take long, comparatively.

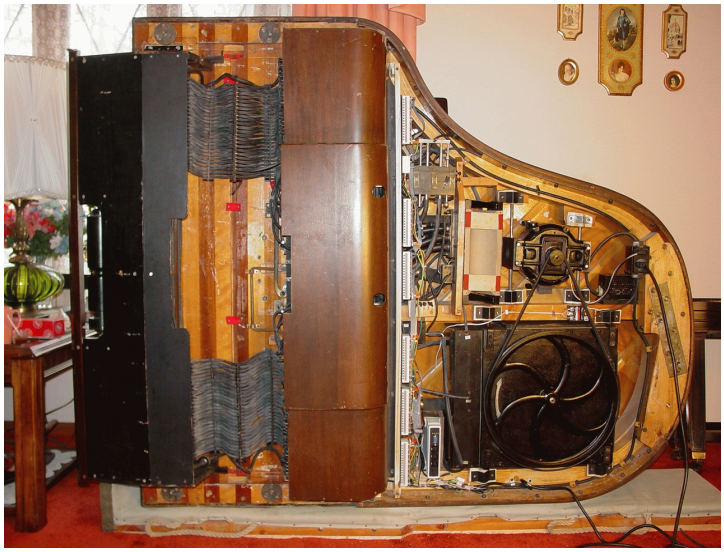
RETROFITTING A PIANO

The first two installations of the Chase-Gerety E-Valve Pneumatic Interface (which presently needs an official name) are great successes. My own Chickering Grand Ampico B reproducing piano was the second instrument ever to receive this awesome invention. It is hard to describe just how much fun this is, and what an education you will get to be able to eventually have the entire library of original piano rolls at your fingertips. Just imagine...

Now I will say this to everybody as a warning. If your player needs work, needs valves or if you

have a rotary pump with original flaps and seats, or original cloth covers, then be prepared to rebuild it, because you are probably going to be playing your piano ten times more than it has ever been played before. That's where I come in, and that's one "selfish" reason I'm interested in these wonderful toys. Because I have been fully restoring players now for over 3 decades and expect to increase my workload shortly. So if you have a yen to get an e-valve interface installed, I strongly suggest that you contact me soon if you suspect that your present player's condition might use a little help, first. Then, I can also retrofit the player properly, in my own shop, and get you completely set up with the interface, too. It isn't a "slam-dunk" that anybody can do when it comes to fitting one of these in and not obscuring other things that might need service. You can reach many an impasse at times before it is working properly, but I don't foresee problems with the interface itself.

To install an e-valve interface, one needs the right tools of course, including the ability to stand grand pianos on their side. But this is the small part of the installation. There are other very important considerations, including air path, distances, where and how to make the tube connections so as not to prevent access and to be as unobtrusive as possible within the original player layout. This takes experience, in most cases. One can make problems for himself, even with older "new" tubing which has lost its grip on the nipples once disturbed. This is the time not to guess or to take a chance, but to replace that tubing, down to the very last piece. It can also require rerouting of tubing and hose at times.



How to mount or to suspend the e-valve units, and how to make them removable for access in many cases is also individual, depending on the instrument, and this mounting system is not included since it varies widely with each installation.

The remapping and formatting software will probably not be included, at least at first, except to approved installers of the system by the manufacturer. That will require training and experience and of course personal knowledge which they can rely on. But the system is so versatile that any single valve anywhere in the system can be mapped individually to play any note or function by the software, completely unlike any other system available today. So if necessary, the valve units could conceivably be haywire-tubed and then sorted out later on the computer.

Below is a letter reproduced from Spencer Chase's website, **Spencer's E-Rolls** and a picture of my own grand, as it was sitting on its side, complete with the e-valve interface. See also

http://www.spencerserolls.com/

Spencer and Gene Gerety visited us this week to install one of the very first e-valve systems into our Ampico B

Chickering. As everyone probably knows, the Ampico B using the late model one piece stack with its very large cover can be pretty tight-fitting with everything else one needs to have under that piano. We didn't have too much trouble doing it. We just mounted the valve units (I am avoiding using the word "valve blocks," since that term has already been taken by Ampico owners and others) on a long stick that reaches across the width of the piano, behind the drop skirt. It makes a really nice installation.

I was worried at first that we were going to have a tubing nightmare. I could just imagine this thing jamming stuff up so bad that if I had a valve failure or needed to get back into my player someday, I would not be able to, so I was taking a chance. As it turned out, It does make it "busier," but not inaccessible. Matter of fact, I resealed all the valve block elbows later and didn't have any trouble at all doing that. Then I even removed a valve block, as usual, and of course, it would be right behind the large feeder hoses and in the busiest portion of the stack, besides. I am satisfied about the cramping issue-- it is not an issue, when done right-- and I use the heavy-wall tubing throughout.

Performance? At least as good as rolls, and of course, better than some, because many rolls with problems, like too narrow holes, do not play well at lowest intensities. So they play just great, regardless what the perforator originally had done to it. You can forget performance problems. It doesn't exist. We played it for hours on end, all day long, day after day, and I could not detect ANY warmth at all. Hmm. "How dey do dat?"

It has this classy pick and hold circuit developed by Gene Gerety that initially opens each valve with high voltage and keeps it open with low voltage. To say that's cool is exactly right, literally and figuratively. And that's reliability, too. On the individual control cards mounted on each e-valve unit, you see no large transistor drivers. Just little tiny stuff that you could lose under a fingernail, and of course the logic converters. My units, being engineering models, do not have covers. That makes them a little more vulnerable. I suspect that shortly, this will be remedied. But cleaning those little valves will obviously be pretty easy, too. They are aluminum with a magnet structure attached. You remove the card and then just hold a screwdriver close to the e-valve poppet and out it comes, attached to your screwdriver blade. However, I don't see how they could ever get dirty. At least, it would be very difficult to do so.

Not so with other past attempts at this sort of thing by previous developers. And to try to clean other specially made magnet valves would be a major nightmare, if not impossible for most. With this system, you can breathe a sigh of relief. It's all easy, direct, simple, practical. And... cool.

Once installed, that's it. You have to buy a separate midi controller in series to send midi signals from your computer to the special controller box mounted in the piano. Those are made by companies like Roland, Edirol, MidiMan, etc.

So far, we don't have the software specifically designed to run this thing yet, but it's in the pipeline. It's coming. Luckily, it works on midi sequencer programs anyway. Cakewalk is a breeze, and so is Windplay 95. With that one, you have this nice sorting feature. So if you have, say, 3500 Ampico roll titles to look through, you can sort by composer, artist, title, roll number, etc.

Windplay still lacks some very important features, like a search engine. If you are looking through a possible 4000 roll titles for a particular song, played by a particular artist, how do you do it? You can't. It can also difficult for computer neophytes to get it all set up, I think. So it may not be for those owners who are not comfortable yet with computers because Windplay is fairly crude in my opinion, but this is to change pretty soon. There will be software arriving for owners of these valve systems-- hopefully sooner, rather than later. In that system, I expect it will have it's beta versions and subsequent refinements. It takes time to get a project like this off the ground.

I think the thing that sold me on the system more than what I had heard about it, was in getting to know Gene and Spencer. First by e-mail, and a few telephone conversations, and finally, in person. They are not "salesmen"-- that's for sure. We got along instantly. If we lived next door to each other, we'd never get anything done. It's like school chums, who can talk about anything. I can trust them. They are honest, they are thorough, and will eventually come through with everything they've expected to do. And when I buy something like this and take a risk, knowing that it is one of the first systems installed, it is so gratifying to realize in the end, there was no risk after all. Something I could not say for past attempts at e-valve interfaces. When something works this well, you just gotta like it.

I was asked by a friend why regular Petersen magnet valves wouldn't work, too? Well, there are lots of reasons why they do not work well on reproducers, but in the first place, they are too large and inefficient. They require lots of current, they are relatively slow to react and return, they are very susceptible to the tiniest speck of metal particles, like from steel wool, which will totally incapacitate them, and they would require a humongous cover to protect them from damage and interference. But mainly, they will not lift promptly enough (or at all) at the high vacuum pressures required for reproducers.

In a nutshell, these new e-valves and their slick electronics control systems are the future of pneumatic player systems. To have your entire library in front of you on a computer screen and all you do is click and play-- well, man,

that's so neat! And then when you want to play rolls, there's nothing to turn off. Just remove the plastic over the trackerbar and the takeup spool cover, and play them to your heart's content. There will be plenty of rolls that you will not have copied to your computer, and this will not take the place of rolls. It is a vast new dimension however to get all the good out of your piano.

If you are a musician and own an electronic keyboard, you will also be able to hear your self play your own pneumatic reproducer, and when you hit a few clinkers, you can edit them right out.

Right now is a very wise time in history to buy one of these, as they are presently at the lowest price they will ever be. Buying Wayne Stahnke's Ampico e-roll CDs (not his Telarc audio CDs) and Peter Phillips Ampico e-roll CD is going to be a good idea now, if you have an Ampico. Think what kind of music you will have. It's like buying 3500 or more brand new vintage Ampico rolls just to start with, and all the cabinets to put them into! And then to hire several librarians to keep track of them all and instantly play them for you. For the low price you are able to own all this for, you may as well consider this electronic interface to be free. You have the best deal that was ever made for player pianos.

Craig Brougher

Note:

To purchase Wayne Stahnke's e-roll CD for Ampico, contact:

Hal Leonard Music
7777 West Blue Mound Rd.
Milwaukee, WI 53213

To purchase Peter Phillips' e-roll for Ampico, contact:

Galen Bird, http://www.birdmusic.org