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Magazine

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Innova SON
Compact Live Digital Audio Mixing Console

by Pete Tidemann

Digital consoles are being manufactured all over the world these days, with the French plying us with the Innova SON Sensory line of desks. This line of consoles is geared toward the live sound reinforcement and recording market and I recently had the opportunity to check out the InnovaSon Compact Live at Visual Horizon Communications in Minneapolis.

InnovaSON developed three different versions of the desk, the Compact Live, Grand Live and Large Scale Live. They all run on the same basic principles, with the only operational difference being the number of inputs and group/aux sends available to an engineer. Ross Kempi, senior engineer at Visual Horizon Communications, and I first set up the Compact Live in the office to run through the options on the desk. Later in the week, we would take it on a show where I could observe it being used in a live situation.

Smaller is Better

This console is surprisingly small. It only took the two of us to take it out of the case and set it up. Who needs an expensive board stand when your desk weighs less the 80 pounds? There are two parts to the desk, the control surface and the stage snake box. The stage box holds the mic inputs and connects to the console via digital transmission through coaxial cable. I liked the fact that there was only two small cables to bring along, although we did have a back up ready because you never know when someone will damage the cable by running over it with a load of chairs or tables. The strength and integrity of coax cable is not the best in the world, but it is inexpensive compared to multi-core snake systems.

With the stage box powered up, we turned on the console and flipped up the LCD screen that is permanently mounted to the desk. The screen displays all of the adjustable parameters within the desk. Surrounding the screen are the central channel control section, the file control section, and the utility knobs. Here is where all the action takes place.

Getting Audio Through the Console

There are three steps to getting audio through the desk. Our first task was to "create" the channels (remember, we're using software here) by selecting the patch-in button to the right of the LCD screen. The physical inputs at the stage box can be assigned to any channel (or channels) on the control surface using this patch-in menu. The stage box inputs are called distant inputs, while the cards that are installed in the desk are called local inputs. The standard configuration for the Compact Live includes 32 mic/line inputs, eight line inputs and 16 hyperdrive output cards located in the console. The remote rack configuration is an option if you need some or all of your inputs to originate from the performance area. The hyperdrive term is used to describe the all-inclusive output cards, which have parametric EQ, dynamics processing, delay and level control built into the cards.

We assigned the inputs to the channels using the grid found on the on-screen menu, and then labeled

each of them accordingly using the on-board keyboard that pulls out from under the desk. Each channel/fader has it's own LED label readout (lead vocal, bass, kick drum etc), a feature I love. No more board tape and magic marker. While set up is not hard, you have to adjust your thinking and do the patching in the software, as opposed to physically plugging mics into different channels.

Now that our inputs were assigned to the appropriate faders, it was time to move onto the second step in the process, assigning the inputs to the output busses. The standard Compact Live features 12 auxiliary busses, 16 hyperdrive outputs and three master mix busses that can be configured as left/right or mono, or left/center/right (LCR) functions. To assign the output busses, you simply hold down the channel you want to

assign, then reach over to the output faders and hit the select button. In my book, this is as easy as it gets.

The last step is to assign the output busses to the physical outputs which are located on the board or stage box. Similar to the first step, you find the patch-out button in the drop-down screen menu and assign your outputs to the physical channels. The same mixing buss can be routed to multiple physical outputs if you want to send audio to multiple locations.

After using analog consoles for many years, it took me a moment to understand how the set-up steps fit together. After grasping the sequence of events, however, I found it easy to understand. The board's layout is very ergonomic. The configuration of parameter control and processing pots is intuitive, and the way you configure

the soft inputs/outputs with the physical I/O's makes perfect sense.

The physical mic pre-amps have all of the digital signal processing (DSP) available at all times. This is significant because, in the digital realm, using more DSP can create latency, or an increase in the amount of time it takes a processor function. This can result in an audible delay as more DSP resources are used. Innova SON enables the DSP functions at all times, making the latency time a fixed figure no matter how much of the DSP is use (1.5 mSeconds).

On all input channels, several processing options are at your fingertips. 48V phantom power, gain, polarity reverse, and high-pass filter are located on the input cards in the rack. The dynamic processing in the control surface gives you a five-parameter compressor and noise gate, and also the four-band parametric EQ as well as pre- and post-fader assignments. These parameters are accessible through the "select" button by each channel. This activates the virtual channel in the center section of the desk. Here you find all of the parameters for the dynamics, and it is simple to toggle between the gate and compressor while still using the same pots to control them.

File Management and Automation

There are thirty-two 100-mm faders for mic/line inputs on the control surface, each fully automated within the scene memories. In addition, there are 12 faders for the group/aux busses on the right-hand side of the console, with the master faders in between the center section. When the situation warrants, you can grab any fader to adjust levels manually, while still changing to the original settings in the next scene.
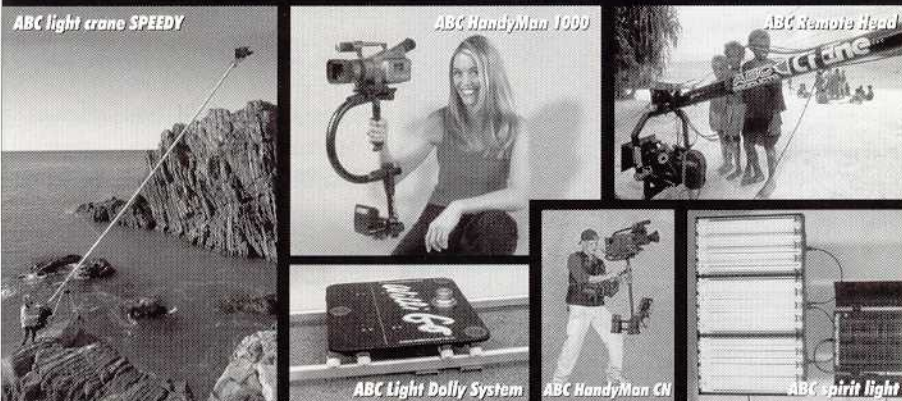
For me, one confusing aspect of the board came when I selected an aux mix buss and all of the faders on the inputs suddenly changed position. Ross Kempi explained to me that when you select a mix buss, the console automatically moves all of the input faders to the level you have set for the selected mix buss. My moment of confusion evaporated when I realized that this is a cool way to see what you have assigned to a particular auxiliary buss across the entire range of inputs you are mixing. Conversely, if you select an input channel, all of the group/aux section faders move to the setting for that particular input.

The most important thing to remember is that you can look at a particular mix set up in several ways, and it can throw you off to see the faders moving

around. It takes a bit of getting used to at first, especially if your experience is strictly with analog consoles. But if you pay attention to the screen (it tells you what settings are being displayed), it all becomes clear.

The file management system is where you keep track of your day-to-day services or events. There are 256 pages per file, and the user can have multiple files. These pages can be configured for different events, entertainment, services, baptisms, weddings, what ever your preference might be. Or you could use the pages all within one Sunday service file to automate the service during worship. You would create each page according to the elements involved in your service. Many churches have a fixed service, so this would be easy to do. One page would open up the lectern micro-

phones, another would un-mute the band and choir, yet another would activate the wireless mics for the minister. These scenes can all be labeled as such, so even someone who relatively inexperienced could select the "go to" button and select the appropriate page.

I was left with a good impression of the console and how it is put together. The audio sounded great, and I appreciate the fact that, if I needed more inputs, all I had to do was bring in another Innova SON console/stage box and link them together. With the small package that it comes in, you will have tremendous audio power for mixing any type of event you may encounter.

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