

PRO AUDIO REVIEW

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INSTALLATION

EQUIPMENT REVIEW

Sony SRP-X700P Digital Powered Mixer

BY WAYNE BECKER

In the ever increasing market for AV systems, Sony has created the SRP-X700P, a digital powered matrix mixer that incorporates an audio mixer, RGB video switcher, equalizer, active feedback reducer and power amplifier in a compact 3RU rack size unit. The SRP-X700 powered A/V matrix mixer reflects the trend in presentation systems towards combining wireless and



wired microphones with audio from multimedia sources ranging from video recorders and DVD players to notebook PCs and LCD projectors. The unit is aimed at being a one-box solution for multimedia presentation systems.

FEATURES

The unit uses 24-bit/48 kHz sampling A/D and D/A converters. Once the audio is in the digital realm, the processing offered includes a low-cut filter, feedback reduction, three-band parametric EQ and compression on the microphone input channels; two-band parametric EQ on the line input channels; a 14-input by 10-output automatic mixer and an 11-band parametric EQ and delay on the line outputs.

Feel the need for control? Its rear-mounted USB connection easily interfaces with a PC running the management software as well as the user control panel application include with product on a CD-ROM. The CD-ROM that ships with the unit contains two applications; a system resource manager and a user

control panel. The CD also contains USB drivers for various Windows OS versions and a software manual with operating instructions. The RS232 connection offers the ability to interface to other control systems such as Crestron or similar control systems. Redundant USB and RS232 connections on the front panel are available for quick access for program changes and testing, a very good idea since the unit will most probably be rack mounted in a cabinet.

The unit weighs in at a hefty 28 pounds and change, and is built like a tank. The front panel controls include eight input faders, two big master A and B volume controls (I love big knobs!), power button, four scene recall buttons, input signal and over gain indicators, a line four select button and power amplifier protection and clip indicators. There are two tuner slots which accept two 800 MHz wireless receivers. The level meters are small and LED based but sufficient and there are overload protection and clip indicators as well. Input

Applications: Installation

Key Features:

6 x 1 AV switcher;
RGB/component video inputs with 5.1 surround audio; six input mixer comprised of microphone and line inputs; onboard power amplifier; USB, RS232 and parallel input ports for remote control; RS232 output port for remote control of applicable video/data projector or plasma display panels; setup and operational PC software

Price:
\$2,700

Contact:
Sony at 800-472-7669,
www.sony.com/proaudio.

Fast Facts

selector buttons allow video source audio from inputs A through F to be connected to the Line 4 input, which is then controlled via a fader for the master audio output of the currently selected video device. Inputs one through four are for balanced low impedance microphone inputs with individually selectable phantom power. Inputs 5 and 6 provide the option to select either microphone or line. When selecting the microphone setting, it automatically applies 48 volts phantom power.

Channels A, B & C provide composite video inputs with associated stereo audio inputs on phono connectors. Channels D and E provide RGB video inputs with 5.1 audio inputs, again using phono connectors. Channel F is an RGB video input with stereo inputs. The video output, selected by Line 4 select buttons, is available in RGB, composite and S-Video formats. The amplifier output section provides two channels at 200W (4 ohm), 150W (8 ohm) and a maximum of 150W (70V line). There's a multichannel line level output for external 5.1 surround systems and a stereo recording output as well.

Every conference room needs a wireless microphone right? Well, how about two? The unit provides two wireless microphone receiver bays (caped with plastic covers from the factory) that house optional wireless receivers and used with Sony's 800 MHz wireless handheld and body pack transmitters. And get this, you can use both a wired and wireless microphone in inputs number one and two. The unit automatically senses when the wireless input is active. When it's not, it reverts back to the wired microphone. So in a pinch (someone forgot to replace the batteries), your presenter is not left standing in the lurch. There are many other subtle features that can only be revealed after reading the excellent manual.

IN USE

Sony's operation manual recommends reading the entire manual before using this unit and I concur. I was tempted to just light things up and play with some knobs, but this unit has a heck of a lot of features that can be used in many ways.

I connected a commercial-grade ceiling speaker with a 70V transformer to the output of the unit and then proceeded to install the receiver into the microphone 1 receiver bay. The wireless receiver installation is easy and straight-forward. The WRT-807B handheld transmitter required a AA battery (not includ-

ed) and was pre-assigned to the channel of the receiver. I am assuming this is a normal practice, but selecting different frequencies on both the receiver and transmitter was easily done in minutes. The wireless transmitter receiver could take a whole other review space just to explain what this thing is capable of. But suffice to say the system is very dexterous in its frequency selection and the audio quality is excellent.

I then installed the SRP-X700P "Manager" and "User Control Panel" applications to my notebook. Installing the software and drivers was a breeze with no complications. Popping open the management software revealed the true horsepower of this unit. Tons-o-DSP for the most discerning tech with a well-thought-out user interface. I was disappointed that the screen could not maximize to a larger size and save my eyes from some squinting, but Sony is not alone in this window size issue. I do not know what the deal seems to be with GUI programmers, but you get a full screen, use it!

The first screen that the software opens to is the "block" screen. This is the overall "block diagram" of the signal flow in the unit. From here you can navigate to any point in the system and selecting a point on the interface brings you to the editing screen for a particular function be it input, output routing, remote, group faders and memory scenes. The input and output menu allow you to choose an overview screen or the EQ screen. The EQ editing screens are particularly interesting as they provide a visual as well as a parameter selection box for all available bands, allowing you to use the tweaking method you are most comfortable with. Selection of features and functions such as low cut filter feedback reducer are also available on this page. The feedback reducer has a setup button that was grayed out; perhaps its availability will be in the next version of software.

From the channel strips you can monitor features like phantom power and RF system usage, adjust the trim, select to activate functions, mute, fader activation, compression, and set the gain limit. There is a front panel lockout selection as well so that you do not have to worry about end users changing or accessing unauthorized functions. On the remote page you can select and adjust parameters for the video equipment the unit will be controlling and how the users will select them.

The User Control Panel is a neat little application that allows a user with a PC con-

nected to the SRP-X700P via the USB port to access system presets and volume adjustments. This is a simple control panel, but good enough for a simple AV room needing access to basic setup and audio control. A good savings if you do not need a full-blown control system or have the unit rackmounted in an inaccessible space. Finally I got to test the audio quality of this unit. I am happy to report that all DSP functions translated well from the management software interface to the host unit and that the resultant sound was excellent. I hate to sound like I am gushing, but this thing is slick.

The unit's video switching worked flawlessly and the signals passed without any noticeable degradation and transitions were smooth and without flicker. I heard no discernable degradation in the audio program material as well. And as I mentioned before, the EQ changes made in the management software translated very well to the program material. I would have liked to have a little more control over the compression settings, but the three settings I had to choose from all sounded good; the hard compression sounded "hard" as expected. But considering the application, they should work well in most situations. The system gain and amplification structure of the audio seemed to have enough juice for systems requiring a good set of playback speakers in a typical lecture hall or a distributed system for some classroom settings. Overall, the unit's ability to mix and manipulate the audio through DSP and switch video from multiple units to a common output was excellent, achieving high quality in both areas.

SUMMARY

I said at the beginning of this article that this unit is aimed at being a one-box solution for AV systems. Well it is as close as I have seen, and should fit the bill for a large percentage of your AV projects, overkill on some, and perfect for others. This unit could be the right fit for many AV installs where simplicity and maximum control are needed in the same environment. This is a quality unit and a "no brainer" where quality is a must and the budget secondary.

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