



Application Notes

Product: PSX-100
Topic: 88.2–96kHz /Pro Tools

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Related Doc #: N/A

High-Density Recording to Pro Tools 24 with Apogee's PSX-100 A/D/A Converter

Using the PSX-100's 88.2/96 kHz "double-wire" mode, you can record full 24-bit/96 kHz (or 24/88.2) audio to a standard Pro Tools 24 system.

A normal 44.1 or 48 kHz AES/EBU output contains both the left and right channels in one cable – the channels are interleaved so that one sample contains data for the left channel while the next sample contains right channel data (LRLRL and so on).

Using Apogee's double-wire method, the *left channel only* is output from the PSX-100's AES/EBU output #1, and the *right channel only* is output from AES/EBU output #2 – each at a sampling rate of 48 kHz (or 44.1 if recording at 88.2). So each AES/EBU data stream consists of a single channel of 88.2 or 96 kHz data, but formatted as if it was two channels of 44.1/48 kHz information.

Pro Tools doesn't know that it is receiving a high-density data stream, and instead regards each of these AES/EBU inputs as a normal AES/EBU signal pair and thus records each of them to two Pro Tools tracks (e.g., left channel on tracks 1&2 and right channel on tracks 3&4) – so a stereo 24/96 signal is recorded on to four tracks in Pro Tools. These tracks can be edited (CUT, COPY, PASTE) but should *not* be further processed with EQ, plug-ins, etc. The tracks can then be routed back into the PSX-100's AES/EBU inputs and output via any of the existing analog or digital outputs (ADAT, TDIF, SPDIF, etc.).

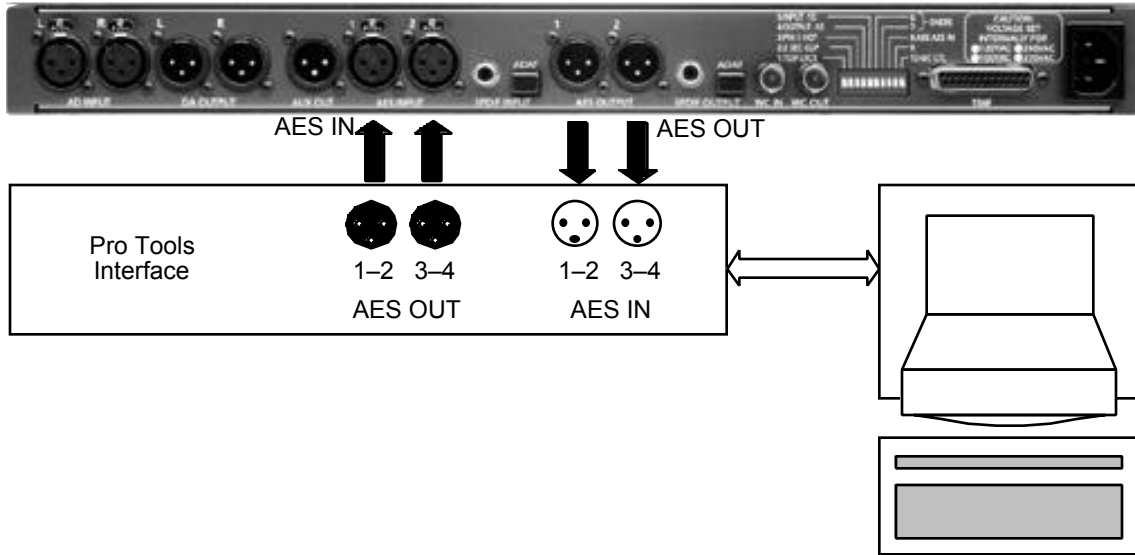
1. Connect PSX-100's AES/EBU outputs 1 & 2 to two corresponding AES input pairs on your Pro Tools interface.
2. Make sure that DIP switch number 9 on the PSX-100's back panel is set UP for double-wire x2Fs operation.
3. Press and hold the A/D SYNC silver button adjacent to the "x2Fs" LED until the LED lights.
4. Create 4 new tracks on Pro Tools and arm them for recording.

To listen back to the 24/96 (or 24/88.2) recording:

1. Place the PSX-100 into either Confidence Monitor mode or Digital Copy mode (see PSX-100 instruction manual for details). The difference between these two modes is that in CM mode, the Pro Tools tracks will

be output from the D/A converter only (and the A/D converter will function normally). In DIGITAL COPY mode, the Pro Tools tracks will be output from all the digital outputs and the analog outputs (the A/D converter is not functional in this mode).

2. Make sure that the "x2Fs" LED is lit indicating that the unit is in FAST mode.
3. For D/A INPUT, select AES 1 and AES 2. In FAST mode, just selecting one or the other will automatically select both.
4. Play back the Pro Tools tracks.



Connecting the PSX-100 to your Pro Tools interface: Simply connect the two AES outputs of the PSX-100 to the first two AES inputs on your interface; and connect the PSX-100's AES outputs to receive signals from the first two outputs of the Pro Tools unit. That's it!