

## Apogee PSX-100 Mastering Setup

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The Apogee PSX-100 AD/DA Converter allows our clients to mix at 88.2 K - 24 Bit, using a standard Tascam DA-88 as the tape recorder medium. We have consistently found this method to be sonically, far superior to the Standard DAT method. The frequency response is 'FLAT' from 5 Hz to 42.5 khz. With the -12 dbFS = 0 VU (+4 dbu) reference, the noise floor is, - 82 VU !! (- 86 dbu). These specs out perform the best consoles or analog tape machines in our industry! It also most closely matches the 'sound painting' that was produced on the monitors in our mixing rooms.

This high sample rate and bit depth is achieved through 'Bit splitting' and is available via Apogee ABS96 system. The 8 Track layout on the DA-88 is as follows.

Trk 1. - L (Bits 1-16) first half 44.1 k	➡	Standard 'old' 16 bit - DAT resolution
Trk 2. - R (Bits 1-16) first half 44.1 k	➡	
Trk 3. - L (Bits 1-16) second half 44.1 k		
Trk 4. - R (Bits 1-16) second half 44.1 k		
Trk 5. - L (Bits 17-24) first half 44.1 k		
Trk 6. - R (Bits 17-24) first half 44.1 k		
Trk 7. - L (Bits 17-24) second half 44.1 k		
Trk 8. - R (Bits 17-24) second half 44.1 k		

## Equipment Required

The mastering setup will require a Apogee PSX-100, Tascam DA-88, TDIF digital cable and a 'BNC' cable of the same length as the TDIF cable.

\*\* If your facility has a central '44.1 khz Word Clock' available, this would also be an asset.

## Setup Method

1. Connect the PSX-100 to the DA-88 with the TDIF cable, and also connect the BNC cable from the W/C output on the PSX to the W/C input on the DA-88.
2. On the Apogee make sure DIP switches 1, 9 and 10 on the back are in the 'UP' position. All others down.
3. Connect your 'House' W/C to the PSX-100 W/C input. ( If available )
4. Turn on equipment, let warm up.
5. On DA-88 set left digital button to 'ON', set sync source button (lower right) to 'WORD'.
6. On Apogee set A/D SYNC to 'W/C' if you have it, otherwise 'Crystal'. The sample rate to 44.1 k. Now with 44.1k selected, repush the A/D sync button and hold for a short moment, the x2Fs LED's should light solid. (This button needs to be pushed 'solid but a bit long', otherwise it won't engage properly. A flashing LED is NOT correct - keep trying.)
7. On the D/A INPUT select TDIF, you should now see on the MDM LED's, that all 4 are lit.
8. Align the D/A converter screw adjustments to your house 0 VU playback standard.

Continued

## Direct Digital Output

For mastering facilities that would like to be able to directly, insert the digital DA-88 playback into your digital work stations, please use the following procedure.

1. In addition to the earlier steps, you will now need to connect an AES cable(s) from the Apogee 'Digital Output' AES 1 and 2 into your work station.
2. This is where Dip switch 9\*\* will come into play. If you use the 'Double Wire' [AES 1-2] method, it should remain 'up' this will then present two AES stereo interleaved 'Pairs' to your work station.
3. If you can input 'Single Wire' [AES -1], switch 9 \*\* should be 'down'. Note that all 88.2K/24Bits, is now on one AES cable, please make sure that you are using the best quality cables in this situation.
4. Now you will need to setup the DA-88 as 'Master'. Move the W/C input sync BNC from the Apogee PSX-100 to the W/C input of the DA-88, select 'Wordclock' on the DA-88. If your facility does not have an 'house' W/C master, set the DA-88 to 'Internal' sync.
5. Now you need to push the 'COPY' button, which will re-route the TDIF (bit split) input, to the AES 1-2 digitals outputs. Note that the PSX-100 'AD Sync' is now selected to 'Dig In', and that the 'Output Res' is also set to 24Bit.

\*\* This assumes that the PSX-100 unit has been modified or has the 'Single Wire AES' update installed.

Happy mastering

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