

## YAMAHA DTX900 Series QUICK START – SAMPLING A “ONE SHOT” SOUND

There are many ways to use the sampling function of the DTX900. This document will focus on using the on-board sampling capability to sample a single sound through the on-board effects of the DTX900, then assign it to a pad for playback where it can further processed and effected.

**SAMPLING ADVISORY:** Unauthorized copying of the commercially available musical data including audio data is strictly prohibited except for your personal use.

### Prepare for sampling – WHAT YOU WILL NEED:

In order to sample you must install the correct optional **DIMM memory** chips in the DTX900. Use matching pairs (2 x 64MB, 2 x 128MB, 2 x 256MB) of PC100 or PC133 memory chips with no more than 18 chips per module. Buy them from a reputable source and the handle chips carefully to avoid static shocks.

You need a **dynamic microphone** with a mono ¼” cable for recording an acoustic sound OR a dual mono to stereo ¼” cable for recording a CD player or similar audio device. We'll use a mic in this example to record a snare sound-be sure to use **proper cable**.



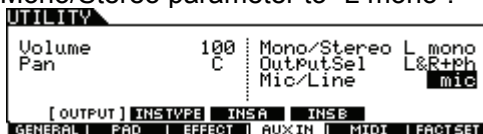
It is also a good idea to have a set of quality **headphones** for monitoring the sound during sampling and for scrutinizing the sample closely after it has been recorded.

Finally, you will need a **USB device** to save your data.

### Setup the DTX900 AUX INPUT:

Plug the cable from your source into the AUX INPUT on the back of DTX900. Next you need to set the MIC/LINE parameter to the appropriate signal.

Press [UTILITY], and press the [F4] **AUX IN** button then the [SF1] **OUTPUT** button. Set the Mic/Line parameter to the value you require. When connecting low output equipment, such as a microphone, electric guitar or bass, set the Mic/Line parameter to “mic.” When connecting high output equipment, such as a keyboard, synth or CD player, set the Mic/Line parameter to “line.” Since we are using a single mic, set the Mono/Stereo parameter to “L mono”.



[If you want to get sampling right away, skip to the next page – to sample with effects, read on...]

Sampling audio is part science, part art and various amounts of luck – at least in the beginning. You can reduce the amount of luck needed to achieve good results by learning the art and science of audio recording and applying those principles to your sampling. The scope of audio recording is too big a topic to be discussed here, so your mileage may vary. Bottom line: Experience helps. The good news is that there is help right inside of the DTX900.

The DTX900 features two insert effects processors (think of them like guitar pedals) that can be patched to the incoming audio and used in many useful and creative ways. In this example, we'll use a compressor to help get a good signal level and a harmonic enhancer to sweeten the sound.

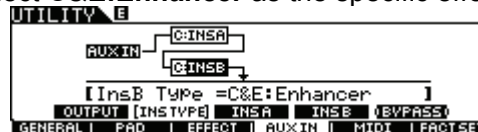
Press [SF2] **INS TYPE** and navigate the cursor to the area between the two effects processors and use the data wheel to select **InsEF Connect = to “InsAtoB”**.



Selecting the effects is also done here. Use the cursor to highlight the “C” box (category) for Insert A and select **C&E:** (compression and eq). Move the cursor to the “INSA” box and select **ClassicComp** as the specific effect.



For INSERT B, we'll select using a different method; highlight the “INSE” box and scroll through the effects and select **C&E:Enhancer** as the specific effect.



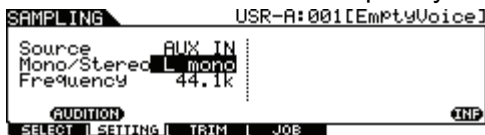
Press [SF3] **INS A** and set the classic compressor Pre (preset) parameter to preset “60's Drumkit”. Press [SF4] **INS B** and set the harmonic enhancer Pre (preset) parameter to preset “Edge”.

The above configuration is only a suggestion – no single setup is perfect for every sampling task. Use headphones to confirm the sound is to your liking. You may decide you don't want the sound of the enhancer, or that you don't want any effects because you are sampling from a CD. What's important is that DTX900 provides you tools to professionally record your audio and create your own great sounds. Now that you know where those tools are and how they can be used you can experiment with them.

### Select an empty USER VOICE:

Press the **[SAMPLING]** mode button and the **[F1] SELECT** button to access the main page. Use the jog-dial or the INC/DEC buttons to select an empty user voice from User-A:01 to User-H:127.

Press the **[F2] SETTING** button and set the Mono/Stereo parameter to **“L mono”** which will allow our mic signal to be recorded as a mono sample. Set the Source to **“AUX IN”** and the Frequency to **44.1k**.

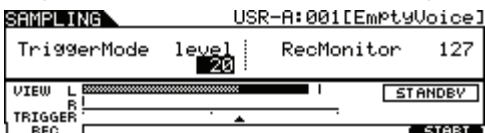


### SAMPLE the sound:

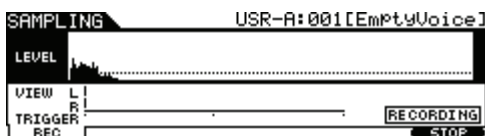
Access the sampling standby page by pressing **[F6] REC** (accessible from the **[F1]** select page). Here you can determine how sampling will take place (Trigger Mode) and set the recording level.

Set the Trigger Mode to **“level”** with a value of around **20**. This means that sampling will automatically begin once the signal level exceeds 20 (or the value you set).

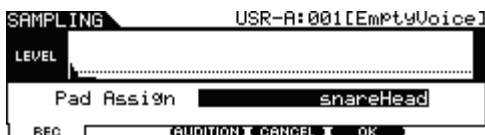
Next, play the snare and adjust the **GAIN** setting on the back of the module so that you get a strong signal without clipping (exceeding maximum record level). Use the on-screen meter to check the level. Get as strong a signal as possible without clipping the level.



When you are ready to go for it press the **[F6] START** button. The display will indicate it is waiting for an incoming audio signal louder than level 20 to begin sampling. Play the snare and recording begins with a display like this:



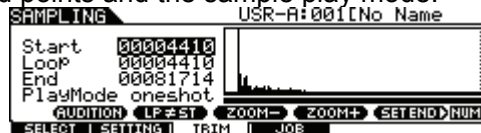
When the sound is finished, press **[F6] STOP**. You are then presented the pad assign screen:



Press **[F3] AUDITION** to listen to your sample. If you don't like it press **[F4] CANCEL** and try again. If you like it you can assign it to a pad by simply striking any trigger on the kit or using the jog-dial. Press **[F5] OK** to set the sample to that pad and return to the main sampling page. Congratulations on your first sample!

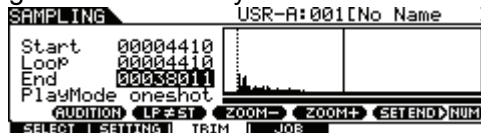
### AFTER Sampling – the TRIM page & sample JOBS:

**[F3] TRIM** – The trim page lets you view the waveform in graphic form as well as make settings for start, loop and end points and the sample play mode.



Notice that the Start point is not zero but 4410. This is equal to  $1/10^{\text{th}}$  of a second when sampling at 44.1kHz. Even though recording was set to occur after a trigger level was crossed, the sampler began sampling just prior to reaching that level. This ensures that you can always get back the attack portion of the sound if your trigger level was set too high. Press and hold **[SF1] AUDITION** button to hear the full duration of the sound.

You might notice in my example above that the End point is 81714, which means my sample is about 1.85 seconds long (81714 divided by 44100 equals 1.85). Since my snare sound is shorter than that I can *trim* the sample by highlighting the End point and using the jog-dial. The display shows me where the new end point is and I can audition the sound to make sure it doesn't get cut off too early.



The reason I want to trim the silence after my snare hit is because I don't want lots of long samples meant to play short sounds. In some cases I can reclaim the memory by using the Extract job described below.

**[F4] JOB** – Various jobs/processes can be applied to the sample such as Normalize, Extract, and Name.

**Normalize** – Maximizes the level of the User Voice. This is useful for bringing up the volume of a user voice that was inadvertently recorded at a low level. A Ratio of 100% will bring the level up to just below clipping; use your ears for best results.

**Name** – Lets you assign a 10-character name to the User Voice. It is highly recommended that you name your samples as they will all default to “No Name”. Use the **[SF6] List** button to see the characters available and to aid in the naming process.

**Extract** – This Job lets you delete from DIMM memory all unnecessary audio data located ahead of the Start Point and located after the End Point, leaving only the portion of the sample you wish to keep.

Be sure to **SAVE** your data as an “AllData” file so you can reload your samples & kits after a power cycle.

For a video demonstration of Sampling visit:  
[www.DTXPERIENCE.com](http://www.DTXPERIENCE.com)