

# Sintefex CX2000 Firmware Update Release Notes v1.0.0

## *Including Sampled Compressor Bank Release June 2001*

21st June 2001

This contains any notes specific to this version of the software that users should be aware of.

### **Improvements Since Initial Release v0.5.0**

1. When using digital input, if the analogue input level adjust/display is called the user is warned that analogue input levels are not effective for the digital input.
2. Selection of output level window now switches metering to show digital output level.
3. Systems not fitted with analogue converters display appropriate message if analogue input or output level page is selected
4. Loading different compressor models no longer temporarily blacks out digital output - muted audio is transmitted uninterrupted instead . This prevents downstream decoders from having to re-lock. Note that digital audio is blacked if there is a change in clock reference or sample rate however.
5. Clock unlock or digital input fault now mutes digital output as well as analogue.
6. Load of compressor model can now be faster as if only one channel is changed a complete reload (including unchanged channel) does not occur.
7. Firmware together with New Compressor Bank: Software and compressor bank have been optimised for minimal processing delay, and uniform delay and phase between compressor models. This allows compressors to be mixed on multiple channels with minimal effect on phase coherence. Bypass delay also matches processing delay and is set to 34 samples between digital input and output. (Note that frequency dependent delays vary between sampled compressors because they are analogue samples)
8. New Compressor Bank: Sampled compressors' nominal gain has been adjusted to match typical compressor overload level to digital output level. This means that the "dirtier" analogue compressors sampled can be adding significant distortion at peak digital output. This is expected of certain compressors and if not desired "cleaner" models should be selected or the output should be driven less hard.

### **Bugs Fixed Since Initial Release v0.5.0**

1. User memories: The user memory bank contains 100 possible user memories. However after 128 saves are made (i.e. overwriting at least 28 older memories) firmware v0.5.0 would behave incorrectly and overwrite its own firmware, necessitating reloading and losing these later memories. Firmware v1.0.0 fixes this. All user programs saved prior to the above problem are preserved intact.
2. User memories: Occasionally a memory could be saved but the data stored to memory would be a copy of the previous memory used, not the current setting. This is now fixed.
3. A minor code error in the dynamic convolution algorithm caused v0.5.0 to show excessive processing delay and possible errors in simulation characteristic. This is fixed with v1.0.0.

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