

necessarily in the shape, appearance or operation of what would commonly be characterized as a button that is pressed. For example, the term "button" when used on the mixing console with respect to the preview button for headphone usage may be a standard button control that moves perpendicular to the face of the mixing console when it is pushed. On the other hand, "buttons" on the touch screen do not move when pushed—rather they respond to pressure or body heat of the fingers or some other mechanism that allows it to respond to commands communicated simply by pressing the finger against the screen at a particular location.

[0046] It is to be understood that while the device of the present invention have been described and illustrated in detail, the above-described embodiments are simply illustrative of the principles of the invention. It is to be understood also that various other modifications and changes may be devised by those skilled in the art which will embody the principles of the invention and fall within the spirit and scope thereof. It is not desired to limit the invention to the exact construction and operation shown and described. The spirit and scope of this invention are limited only by the spirit and scope of the following claims.

What is claimed is:

1. A device for mixing audio tracks of sound recordings that are in compressed digital audio data format and which eliminates the need for a disc jockey mixing console, a plurality of turntables or a plurality of vinyl LP records, said device comprising:

a disc jockey mixing console with three or more audio tracks and having analog controls including, for each audio track, a slider for adjusting speed, a main output volume knob for adjusting volume heard on a main speaker output, equalizing knobs, and including a crossfader for single-handed fading from one audio track to another on the main speaker output and a scratchpad for special effects, and including for each audio track a preview button,

two audio outputs including a headphone output and the main speaker output, said two audio outputs each including a digital to analog convertor, the headphone output also including analog controls for adjusting a volume of a final mix analog audio heard on the headphone, said headphone output activated by the preview button,

a touch screen LCD panel having buttons for selecting and queuing sound recordings in each audio track, said touch screen LCD panel including a graphical display of a wave form of an audio sound track in a play mode, and said touch screen LCD panel including a button in each audio track for opening a menu of special effects and selecting one or more special effect to be applied to that audio track in digital format,

a computer, including a processor, ROM storage means, RAM storage means, a hard disc to store audio sound track files, and software for decoding each audio track from compressed digital audio data format to digital format, applying special effects to each audio track based on speed parameters supplied by the sliders and based on special effects parameters supplied the touch screen LCD panel and based on tone parameters sup-

plied by the equalizing knobs, mixing the audio tracks heard on the main speaker output that are in digital format using volume parameters provided by the analog controls to generate a final mix digital output and sending the final mix digital output to the digital to analog convertor of the main speaker output to be converted to final mix analog audio, and mixing the audio tracks heard on the headphone output that are in digital format using preview buttons to generate a headphone mix digital output and sending the headphone mix digital output to the digital to analog convertor of the headphone output to be converted to headphone mix analog audio,

each equalizing knob, each main output volume knob, each slider and the crossfader slider being connected to an analog to digital convertor to translate the analog position into a numerical value for the computer,

said single device allowing a disc jockey to manually mix and manually adjust the speed of compressed digital audio data sound recordings with a level of manual dexterity typically used in the mixing of vinyl LP records, said level of manual dexterity far exceeding the level of manual dexterity provided by a computer pointing device.

2. The device of claim 1, wherein the buttons on the touch screen LCD panel for queuing sound recordings include at least a button for play mode, a button for rewind mode, a button for forward mode and a button for pause mode

3. The device of claim 1, including an optional interface between the device and an external personal computer for uploading sound recordings from the personal computer to the device and for downloading an audio mixing performance created using the device on to the personal computer from the device for the purpose of advertising and/or selling the audio mixing performance through a global telecommunications network.

4. The device of claim 1, wherein the device includes an optional audio input comprising an analog to digital convertor for converting sound recordings in analog format to compressed digital audio data format and an optional CD ROM drive for converting sound recordings in digital format to compressed digital audio data format thereby allowing the device to be used with a high degree of manual dexterity for mixing sound recordings in either compressed digital audio data format or CD format for noncompressed digital data.

5. The device of claim 1, wherein the crossfader has an on/off switch, a left crossfader switch having settings corresponding to each audio track on the disc jockey mixing console, a right crossfader switch having settings corresponding to each audio track on the disc jockey mixing console and a crossfader slider between the left crossfader switch and the right crossfader switch, and wherein manual placement of the crossfader slider on a left end triggers the audio track that corresponds to the setting on the left crossfader switch to be audible on the main speaker output, wherein manual placement of the crossfader slider on a right end triggers the audio track that corresponds to the setting on the right crossfader switch to be audible on the main speaker output and wherein placement of the crossfader slider in a middle area triggers both the audio track that corresponds to the setting on the left crossfader switch and the audio track that corresponds to the setting on the right crossfader switch to be simultaneously audible on the main speaker output.