

Description**UPGRADING THE KARAOKE AUDIO CASSETTE
TAPE FOR VISUALIZATION**

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Technical Field of the Invention

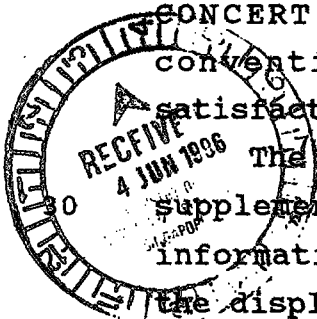
The present invention relates to the karaoke audio cassette tape, in particular the karaoke audio cassette tape having been upgraded for visualization.

Background of the Invention

The karaoke recreational facility has become a sound recreational facility having been widely popularized. The Karaoke is up till now still using a conventional cassette tape, so that as such the karaoke can produce only accompanying music, and by the time the singer sings the song text in keeping with the accompanying music, he/she has to hold a guide book (if available) for such karaoke in order to produce a lyric combination pronounced by the singer and the accompanying music produced by the karaoke will become harmonious. However, such a way of displaying, being detached and concentration of the singer would be upset, so that CONCERT and harmony of the song produced by the conventional karaoke and the singer would not be satisfactory.

The present invention aims to provide a supplementary facility to the singer in the form of an information song lyric and song signals or the like on the display screen which is quite helpful to the singer's performance to accomplish a result satisfactory to the listener.

Such facility, having gone through a sufficiently long research and considered from economic and practical points of view, the most preferred appearance is the upgraded conventional karaoke audio cassette tape.



Brief Description of the Invention

As is quoted above, the supplementary facility to the karaoke to provide the singer with easiness is the picture on the display screen depicting a lyric, musical signals and the like which are harmonious with the musical accompaniment of the karaoke.

To create the picture on the display screen by way of visualization, the upgraded conventional karaoke cassette tape is used with an upgrading system going through the following steps: mixing the information data with an audio signal in the form of a high frequency signal having been modulated through FSK (Frequency Shift Keying) by a digital data serial format on the conventional Karaoke audio cassette tape. The said modulation frequency ranges from 2 KHz to 50 KHz. The information produced from the said mixing in the form of a song lyric visualization, musical signals and the like being harmonious with the musical accompaniment to the song available on the conventional karaoke cassette tape, whereas the data for information is produced by a computer with the help of standard-software.

This karaoke audio cassette tape upgrading, the tape containing the information data, uses a special audio cassette player unit complemented with a data visualizing system on the display device.

Brief Description of Drawings

Figure I is a block diagram of the data recording process on the karaoke audio cassette tape.

Figure II is the data format used.

Detailed Description of the Invention

Now we refer to Figure I, where computer I functions as a digital data source on a fixed format and protocol (see Figure II). An output from the computer (1) is

conveyed to the FSK modulator (2) which functions for the purpose of modulating the high frequency signal with the digital data serial with the intent that the data signal may be easily separated from the audio signal by the time of re-coding.

The output from the FSK modulator (2) is mixed with the vocal signal from the master audio (5) representing the audio signal source, which is normally on the right-hand channel. Such mixing is done on the mixer (3) which functions to mix the (vocal) audio signal and a signal coming from a FSK modulator. The output from the said mixture is connected to the audio recorder (4).

The music output from the audio master (5) which normally on the left-hand channel, is connected to the attenuator (6) for its level organizing. For the rest the output from the attenuator (6) is connected to the audio recorder (4) for recording together with the output signal from the mixer (3).

Next we refer to Figure II, the song lyric information conveyed by the computer in the form of data blocks having a format as is presented in Figure II.A. A data block comprises a lead sync (II.B) is useful to identify the start from a data block. Data (II.D & II.B) contain the information despatched; Tail Sync (II.C) represent the last code of a data block.

The lead sync is a signal with periods ($T_1 + T_2$) of such format as is given on Figure II.B. The Tail sync signal with periods ($T_3 + T_4$) of a format as is given on Figure II.C. The information data represents a group of bits (binary digits) "0" and/or "1", of which the "0" bit is a signal with periods ($T_5 + T_6$) of such format as is given on Figure II.D, and bit "1" is a signal with periods ($T_7 + T_8$) in a format as is given on figure II.E.

Claims

1. The upgrading system of the conventional karaoke audio cassette tape in order to be able to provide visual information on the monitor in harmony with the accompanying music from the cassette tape, comprises the following step: mixing the high frequency signal having been FSK-wise modulated by the digital data serial information on the karaoke audio cassette tape, which features the use of the instruments: a computer, an FSK modulator, a mixer, an audio master, an attenuator and an audio recording machine.

2. In the upgrading system of the karaoke audio cassette tape according to Claim 1, the modulated high frequency ranges from 2 Hz to 50 KHz.

3. In the karaoke audio cassette tape upgrading system according to claim 1, the digital data serial information signal has such format as is given on Figure II.

4. The karaoke audio cassette tape upgrading system is according to Claim 1, one functioning as a digital information data source in a fixed format.

5. The karaoke audio cassette tape upgrading system according to Claims 1 and 2, is one featuring the use of an FSK modulator which functions for the modulation of the high frequency signal with the digital data serial.

6. The karaoke audio cassette tape upgrading system according to Claims 1 and 5 is one featuring the use of a mixer which functions to mix the (vocal) audio signal with the one coming from the FSK modulator.

7. The karaoke audio cassette tape upgrading system according to Claim 1 is one featuring the audio master which represents an audio signal source.

8. The karaoke audio cassette tape upgrading system according to Claims 1 and 7 featuring the use of an attenuator is one which functions to adjust the signal level for recording.



9. The karaoke audio cassette tape upgrading system according to Claims 1, 6, and 8 featuring the use of an audio recording device, functions to record signals from the mixer and the attenuator.

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