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Inventor(s)	Clay; Suzette

Vehicle audio recording system

Abstract

A vehicle audio recording system for recording speech and radio transmissions such that they can be replayed includes a vehicle with a control circuit is mounted therein. An audio system is also mounted in the vehicle and is electrically coupled to the control circuit. The audio system receives and audibly plays radio channels and stored audio files. A memory circuit is electrically coupled to the control circuit. A microphone is mounted within the vehicle and is electrically coupled to the control circuit. And a steering wheel controller is integrated into a central portion of a steering wheel of the vehicle which is electrically coupled to the control circuit. The steering wheel controller includes a dictation input for recording speech captured by the microphone to be stored on the memory circuit.

Inventors: **Clay; Suzette (Gallatin, TN)**

Applicant: **Clay; Suzette** (Gallatin, TN)

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Primary Examiner: Patel; Yogeshkumar

Background/Summary

(b) CROSS-REFERENCE TO RELATED APPLICATIONS
(1) Not Applicable
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT
(2) Not Applicable
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT Not Applicable
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC OR AS A TEXT FILE VIA THE OFFICE ELECTRONIC FILING SYSTEM
(3) Not Applicable
(f) STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR JOINT INVENTOR
(4) Not Applicable
(g) BACKGROUND OF THE INVENTION
(1) Field of the Invention
(5) The disclosure relates to speech recording systems for vehicles and more particularly pertains to a new speech recording system for vehicles for recording speech and radio transmissions such that they can be replayed.
(2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98
(6) The prior art relates to speech recording systems for vehicles. Several recording devices are available, but the prior art does not disclose a speech recording system for a vehicle with memory storage and the ability to play back the recordings made by the system.

(h) BRIEF SUMMARY OF THE INVENTION
(7) An embodiment of the disclosure meets the needs presented above by generally comprising a vehicle with a control circuit is mounted therein. An audio system is also mounted in the vehicle and is electrically coupled to the control circuit. The audio system is configured to receive and audibly play radio channels and stored audio files. A memory circuit is electrically coupled to the control circuit. A microphone is mounted within the vehicle and is electrically coupled to the control circuit. And a steering wheel controller is integrated into a central portion of a steering wheel of the vehicle which is electrically coupled to the control circuit. The steering wheel controller includes a dictation input for recording speech captured by the microphone to be stored on the memory circuit.
(8) There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter and which will form the subject matter of the claims appended hereto.
(9) The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

Description

(i) BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)
(1) The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:
(2) FIG. **1** is a front view of a portion of a vehicle audio recording system according to an embodiment of the disclosure.
(3) FIG. **2** is a front view of a portion of an alternative embodiment of the disclosure.
(4) FIG. **3** is an in-use view of an embodiment of the disclosure.
(5) FIG. **4** is a block diagram of an embodiment of the disclosure.
(j) DETAILED DESCRIPTION OF THE INVENTION
(6) With reference now to the drawings, and in particular to FIGS. **1** through **4** thereof, a new speech recording system for vehicles embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral **10** will be described.
(7) As best illustrated in FIGS. **1** through **4**, the vehicle audio recording system **10** generally comprises a vehicle **12** with a control circuit **14** that is mounted in the vehicle **12**. The control circuit **14** may comprise one or more processors with conventional programming used with automobiles. The control circuit **14** may, for example, control lights, heating and cooling, navigation systems, and/or similar functions. An audio system is mounted in the vehicle **12** and is electrically coupled to the control circuit **14**. The audio system is configured to receive and audibly play radio channels and stored audio files. “Radio channels” in this detailed description and in the claims is a generic term including communication signals using amplitude modulation (AM) transmission, frequency modulation (FM) transmission, satellite radio services, wireless personal area networks, wireless local area networks, and the like. The audio system further comprises conventional elements of automobile sound systems such as a radio receiver, speakers, and the like.
(8) A transceiver **18** is electrically coupled to the control circuit **14** and is configured to wirelessly communicate with personal computing devices. “Personal computing devices” in this detailed description and in the claims refers to computing devices that store audio files which are able to be transmitted wirelessly and includes laptop computers, desktop computers, mobile phones, tablets,

and the like. A memory circuit **20** is also electrically coupled to the control circuit **14**. A console controller **22** is coupled to and positioned on a central console **24** of the vehicle **12**, and the console controller **22** is electrically coupled to the audio system. The console controller **22** comprises a console input **26** for recording, storing, and playing audio files using the audio system. The console input **26** may include a plurality of buttons **28**, a touchscreen **30** with selectable icons, or the like. A microphone **32** is mounted within the vehicle **12** and is electrically coupled to the control circuit **14**.

(9) A steering wheel controller **34** is integrated into a central portion **60** of a steering wheel **36** of the vehicle **12**. The steering wheel controller **34** is electrically coupled to the control circuit **14** and includes a steering wheel input **38** for recording, storing, and playing audio files using the audio system. Like the console input **26**, the steering wheel input **38** may comprise a plurality of buttons **40**, a touchscreen **42**, or the like. The steering wheel input **38** includes a dictation input **44** wherein actuation of the dictation input **44** records speech captured by the microphone **32** to be stored on the memory circuit **20**. The dictation input **44** may be programmed to record speech while being continuously actuated, and to toggle between starting and ending a recording when actuated. The control circuit **14** is programmed to convert the speech into text and transfer the text to a mobile device with the transceiver **18**. The control circuit **14** will also store the speech as an audio file that can be stored on the memory circuit **20**.

(10) The steering wheel input **38** also includes a live play record input **46** wherein the memory circuit **20** records a currently played broadcast program on the memory circuit **20** when the live play record input **46** is actuated. A “currently played broadcast program” as used in this detailed description and in the claims refers to any radio transmission of an audio communication received by the audio system, including a song, talk show, or news program. The control circuit **14** may be programmed to record a completed communication, e.g., a complete song, if the live play record input **46** is actuated after the communication has already begun. The steering wheel input **38** also includes a destination input **48** wherein actuation of the destination input **48** provides selectable destination folders on the memory circuit **20** for storage of a recorded program or recorded speech.

(11) The steering wheel input **38** may also include inputs for finding or accessing a radio channel. For example, an input for pairing to a device using a wireless personal area network, or another input for searching a set of radio frequencies to find a broadcast radio communication. The steering wheel input **38** may include a play/pause input **50** for playing and pausing a recorded speech or program. The steering wheel input **38** may also include a forward skip input **52** and a backward skip input **54** for skipping forward and backward respectively in playing a recorded speech or program. Skipping may skip to a different track, by a time interval, or the like. A volume input **56** may also be included in the steering wheel input **38** for controlling the volume of recorded speeches or programs during replay. A display screen **58** may also be included in the steering wheel input **38** for displaying menus or other visual information. The display screen **58** may also be the touchscreen **30** integrated with the other functions of the steering wheel input **38**.

(12) In use, a user will actuate the dictation input **44** and speak in order to record a speech of the user. The user may actuate the destination input **48** to select a destination folder on the memory circuit **20** and may play back the recorded speech using the conventional interface of the audio system or the steering wheel input **38**. The user may also record the currently played broadcast program by actuating the live play record input **46**.

(13) With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.

(14) Therefore, the foregoing is considered as illustrative only of the principles of the disclosure.

Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the disclosure. In this patent document, the word “comprising” is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article “a” does not exclude the possibility that more than one of the element is present, unless the context clearly requires that there be only one of the elements.

Claims

1. A vehicle audio recording system comprising: a vehicle; a control circuit being mounted in said vehicle; an audio system being mounted in said vehicle and being electrically coupled to said control circuit, said audio system being configured to receive and audibly play radio channels and stored audio files; a memory circuit being electrically coupled to said control circuit; a microphone being mounted within the vehicle and being electrically coupled to said control circuit; and a steering wheel controller being integrated into a central portion of a steering wheel of the vehicle, said steering wheel controller being electrically coupled to said control circuit, said steering wheel controller including: a dictation input wherein actuation of said dictation input records speech captured by the microphone to be stored on said memory circuit; and a destination input being actuatable to select one of a plurality of destination directories on a file system of said memory circuit for storage of recorded speech.
2. The system of claim 1, further comprising a console controller being coupled to and positioned on a central console of the vehicle, said console controller being electrically coupled to said audio system, said console controller comprising a console input.
3. The system of claim 1, further comprising a transceiver being electrically coupled to said control circuit and being configured to wirelessly communicate with personal computing devices, said control circuit being programmed to convert the speech into text and transferring the text to a mobile device with said transceiver.
4. The system of claim 1, further comprising a live play record input wherein the memory circuit records a currently played broadcast program on said memory circuit when said live play record input is actuated, said destination input being actuatable to select one of a plurality of destination directories on a file system of said memory circuit for storage of a recorded program.
5. A vehicle audio recording system comprising: a vehicle; a control circuit being mounted in said vehicle; an audio system being mounted in said vehicle and being electrically coupled to said control circuit, said audio system being configured to receive and audibly play radio channels and stored audio files; a transceiver being electrically coupled to said control circuit and being configured to wirelessly communicate with personal computing devices; a memory circuit being electrically coupled to said control circuit; a console controller being coupled to and positioned on a central console of the vehicle, said console controller being electrically coupled to said audio system, said console controller comprising a console input; a microphone being mounted within the vehicle and being electrically coupled to said control circuit; and a steering wheel controller being integrated into a central portion of a steering wheel of the vehicle, said steering wheel controller being electrically coupled to said control circuit, said steering wheel controller including: a live play record input wherein the memory circuit records a currently played broadcast program on said memory circuit when said live play record input is actuated; a dictation input wherein actuation of said dictation input records speech captured by the microphone to be stored on said memory circuit, said control circuit being programmed to convert the speech into text and transferring the text to a mobile device with said transceiver; and a destination input said destination input being actuatable to select one of a plurality of destination directories on a file system of said memory circuit for

storage of recorded speech, said destination input being actuatable to select one of a plurality of destination directories on a file system of said memory circuit for storage of a recorded program.