

## Exhibit 014-06: U.S. Patent No. 6,703,940 (“Allen”)

U.S. Patent No. 6,703,940 (“Allen”) was filed on June 15, 1999 and issued on March 9, 2004. Accordingly, Allen constitutes prior art to the ’014 patent under at least pre-AIA 35 U.S.C. §§ 102 (a) and (b).

Allen, including any material incorporated by reference into Allen, anticipates claims 25, 32, 35, 38, 42, and 43 (the “asserted claims”) of the ’014 patent under pre-AIA 35 U.S.C. §§ 102(a) and (b).

To the extent any limitation is found not to be expressly or inherently disclosed in Allen, such a limitation would have been obvious either based on Allen alone, given the state of the art, or in combination with one or more of the references cited in Exhibits 014-01 through 014-06, or Exhibit 014-B because the ’014 Patent is merely a collection of prior art elements that fails to meet the statutory requirement of non-obviousness under 35 U.S.C. § 103, and the factors delineated in *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), weigh against a finding of non-obviousness.

Any disclosures identified for each limitation of the ’014 patent in the aforementioned Exhibits may be combined with Allen below for the same limitation to render that limitation obvious. A POSITA would have found such a combination/modification obvious for the reasons discussed herein and in Defendant’s cover pleading.<sup>1</sup>

The citations to portions of any reference in this chart are exemplary only. Citations to the written description should be interpreted to include the figures associated with or relevant to the cited passages. Similarly, citations to a figure should be understood to encompass any description, text, or discussion of that figure. Defendant reserves the right to use the entirety of any reference cited in this chart to show that the asserted claims are anticipated and/or are obvious. Citations presented for one claim limitation are expressly incorporated by reference into all other limitations for that claim as well as all limitations of all claims on which that claim depends.

Defendant reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in Plaintiff’s infringement contentions, and/or information obtained during discovery as the case progresses.

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<sup>1</sup> Plaintiff appears in many instances to be pursuing overly broad constructions of limitations of the asserted claims in an effort to piece together an infringement claim where none exists. This claim chart accounts for overly broad construction of the claim limitations. Any assertion that a particular limitation is disclosed by a prior art reference or references may be based on Plaintiff’s apparent constructions and is not intended to be, and is not, an admission that such constructions are supportable or proper. Defendant is investigating this prior art and has not yet completed discovery from third parties, who may have relevant information concerning the prior art. Therefore, Defendant reserves the right to supplement this chart after additional discovery is received. To the extent that any of the prior art discloses the same or similar functionality or feature(s) of any of the accused products, Defendant reserves the right to argue that said feature or functionality does not practice any limitation of any of the asserted claims, and to argue, in the alternative, that if said feature or functionality is found to practice any limitation of any of the asserted claims, then the prior art reference teaches the limitation and that the claim is not patentable.

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Defendant reserves the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in Plaintiff’s infringement contentions, and/or information obtained during discovery as the case progresses.

Exemplary Disclosures

25[pre] An apparatus for controlling a plurality of players, the apparatus comprising:

Defendant does not concede that the preamble is limiting. To the extent it is limiting, Allen discloses the preamble. See, e.g., the following:

“An audio system may include a plurality of sound reproduction devices characterized by parameter values.” Abstract.

“System controller 10 is adapted to receive user input instructions from any one of a plurality of remote control units 14 and to transmit system status information to remote control units 14. System controller 10 is adapted to transmit and receive signals to and from remote control units 14 by wireless methods. In one embodiment, system controller 10 and remote control units 14 are adapted to communicate on radio frequencies, thereby allowing communications with remote control units which are in a different room from system controller 10 without the need for a second system controller, and additionally enabling remote control units to be moved from room to room. The sound system typically includes a single system controller 10 and may include several remote control units 14, thereby allowing each sound reproduction device and each sound reproduction device to be controlled from several remote control units.” 3:50-65.

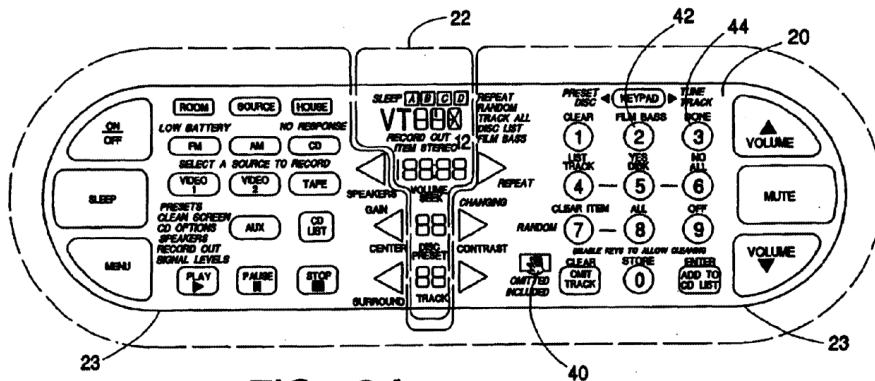


FIG. 3A

Fig. 3A.

Alternatively, it would have been obvious to modify Allen to include an apparatus for controlling a plurality of players, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25 [pre].

To the extent that Allen is found not to disclose the preamble, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

Exemplary Disclosures

25[a] a screen; a screen driver commanding the screen; an input interface:

Allen discloses this feature. *See, e.g.*, the following:

“System controller 10 is adapted to receive user input instructions from any one of a plurality of remote control units 14 and to transmit system status information to remote control units 14. System controller 10 is adapted to transmit and receive signals to and from remote control units 14 by wireless methods. In one embodiment, system controller 10 and remote control units 14 are adapted to communicate on radio frequencies, thereby allowing communications with remote control units which are in a different room from system controller 10 without the need for a second system controller, and additionally enabling remote control units to be moved from room to room. The sound system typically includes a single system controller 10 and may include several remote control units 14, thereby allowing each sound reproduction device and each sound reproduction device to be controlled from several remote control units.” 3:50-65.

“Referring to FIG. 5, there is shown the logical arrangement of the control and information flow of microprocessor 50. Control and information flow are controlled. by software system 70, which includes a plurality of device drivers 73 and operating system 71. Device drivers perform one or both of two functions. They receive information from a module of the operating system and transform the information into a form usable by an associated device; and they receive information from the device and transform the information into a form usable by the operating system. Drivers are typically implemented in software. Operating system 71 includes screen manager module 72, touchscreen manager module 74, test access port manager 75, message manager module 76, scheduler module 78, all of which may be implemented in software. Modules 72, 74, 76, and 78 read and write to RAM 64 through memory manager 80. Scheduler module 78 also accesses timing information from timers 62. Touchscreen manager module 74 exchanges information with screen manager 72 and message manager 76.” 6:65-7:16.

“Referring to FIG. 7, there is shown the logical arrangement of the control and information flow of microprocessor 50'. Control and information flow are controlled by software system 70', which includes a plurality of device drivers 73' and operating system 71'. Device drivers perform one or both of two functions. They receive information from a module of the operating system and transform the information into a form usable by an associated device; and they receive information from the associated device and transform the information into a form usable by the operating system. Drivers are typically implemented in software. Driver for volume controller and multiplexer 86 may use the “IIC” protocol, which is a popular protocol for controlling devices of this type. Operating system 71 includes tuner manager module 92, CD manager module 94, volume manager 96, mute manager module 98, source manager module 100, message manager module 76', scheduler module 78', all of which may be implemented in software.” 7:54-8:4.

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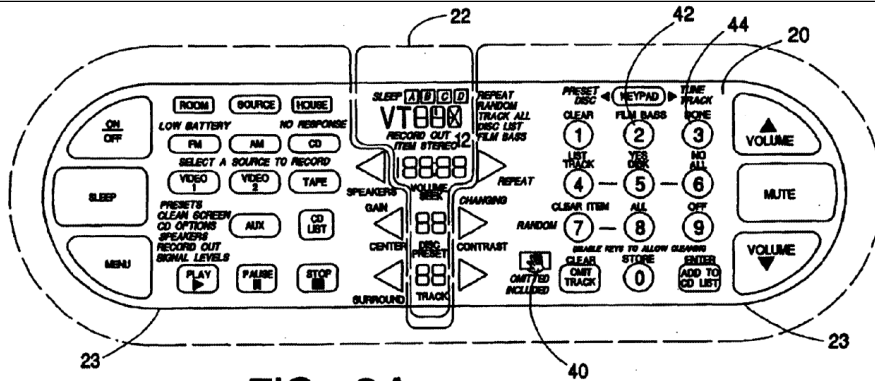


FIG. 3A

Fig. 3A.

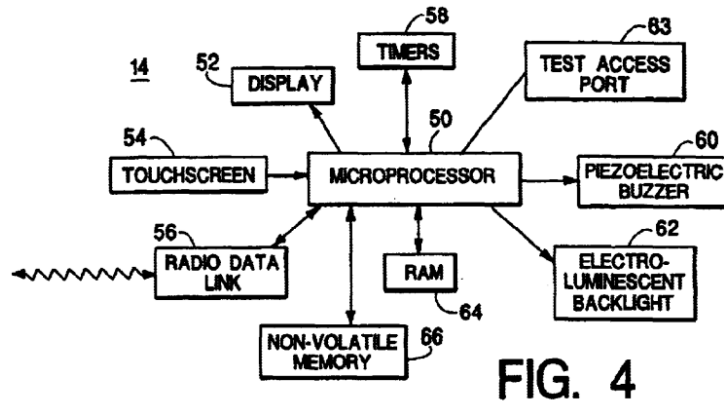


FIG. 4

Fig. 4.

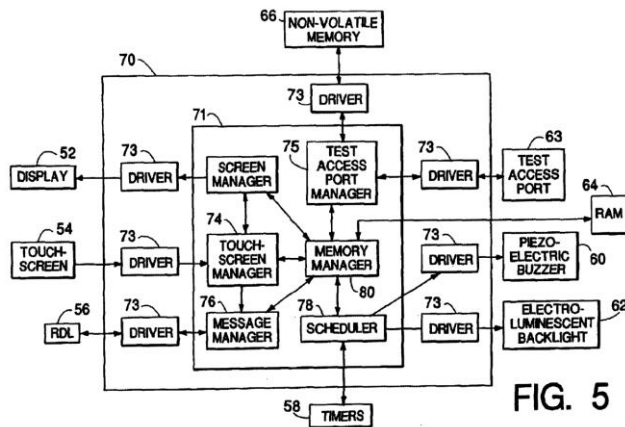


FIG. 5

Fig. 5.

Alternatively, it would have been obvious to modify Allen to provide a screen; a screen driver commanding the screen; and an input interface, based on the knowledge

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of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[a].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**25[b] a network interface:**

Allen discloses this feature. *See, e.g.*, the following:

“Referring to FIG. 4, there is shown a block diagram of remote control unit 14. Microprocessor 50 is coupled to display 52, touchscreen 54, radio data link (RDL) 56, piezoelectric buzzer 60, electro-luminescent backlight 62, test access port (TAP) 63, RAM 64, and non-volatile memory 66. RDL 56 transmits signals to, receives signals from, system controller 10 (not shown in this view).” 6:46-52.

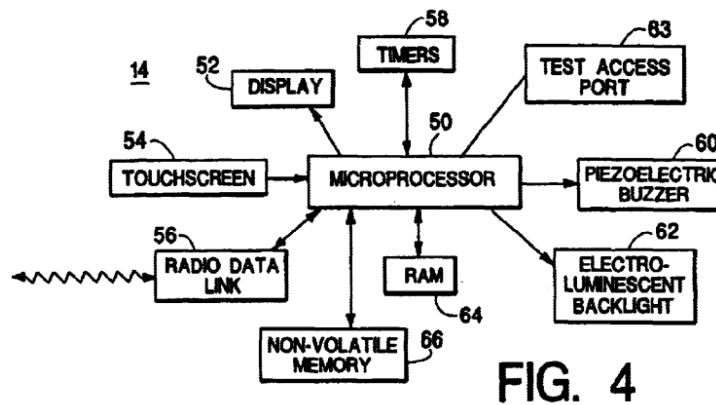


Fig. 4.

Alternatively, it would have been obvious to modify Allen to provide a network interface, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[b].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**25[c] a memory for storing code for an application module; a processor coupled to the memory, the input interface, the screen driver and the network interface, the processor executing the code in the memory to cause the application module and the screen driver to perform operations of:**

Allen discloses this feature. *See, e.g.*, the following:



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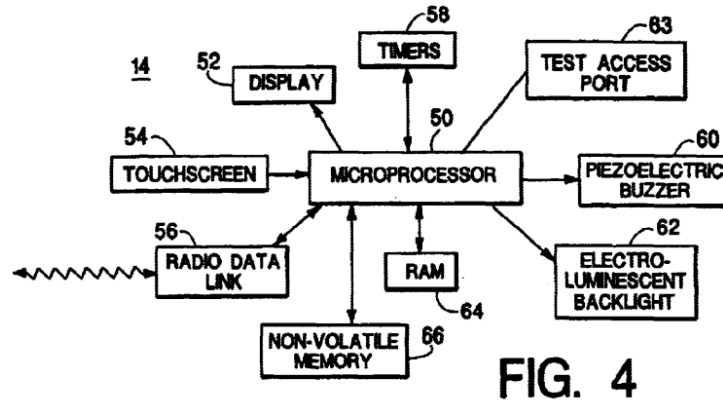


Fig. 4.

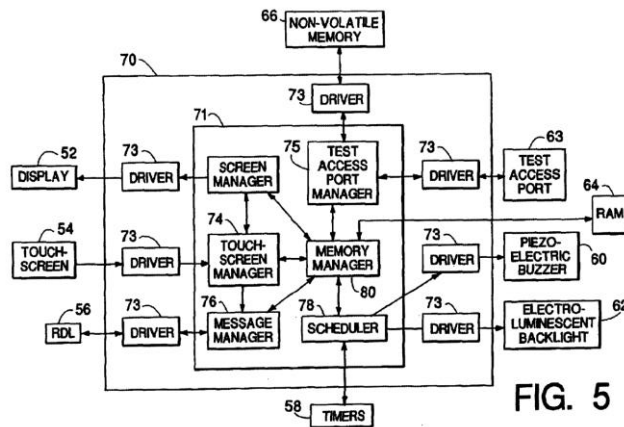


Fig. 5.

Alternatively, it would have been obvious to modify Allen to provide a memory for storing code for an application module a processor coupled to the memory, the input interface, the screen driver and the network interface, the processor executing the code in the memory to cause the application module and the screen driver to perform operations of, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[c].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**25[d] displaying on a screen a first list showing at least available players:**

Allen discloses this feature. *See, e.g.*, the following:

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue

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commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

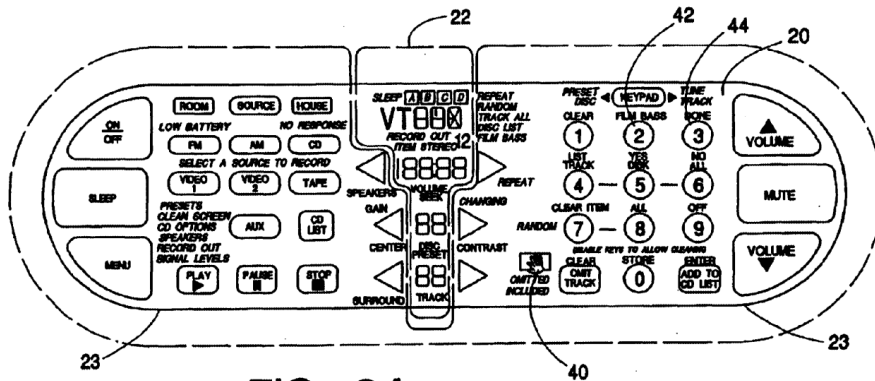


FIG. 3A

Fig. 3A.

Alternatively, it would have been obvious to modify Allen to display on a screen a first list showing at least available players, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[d].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

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25[e] displaying a zone group including players from the available players when at least two of the available players are selected to form the zone group, wherein any one of the players in the group serves as a zone group head:

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

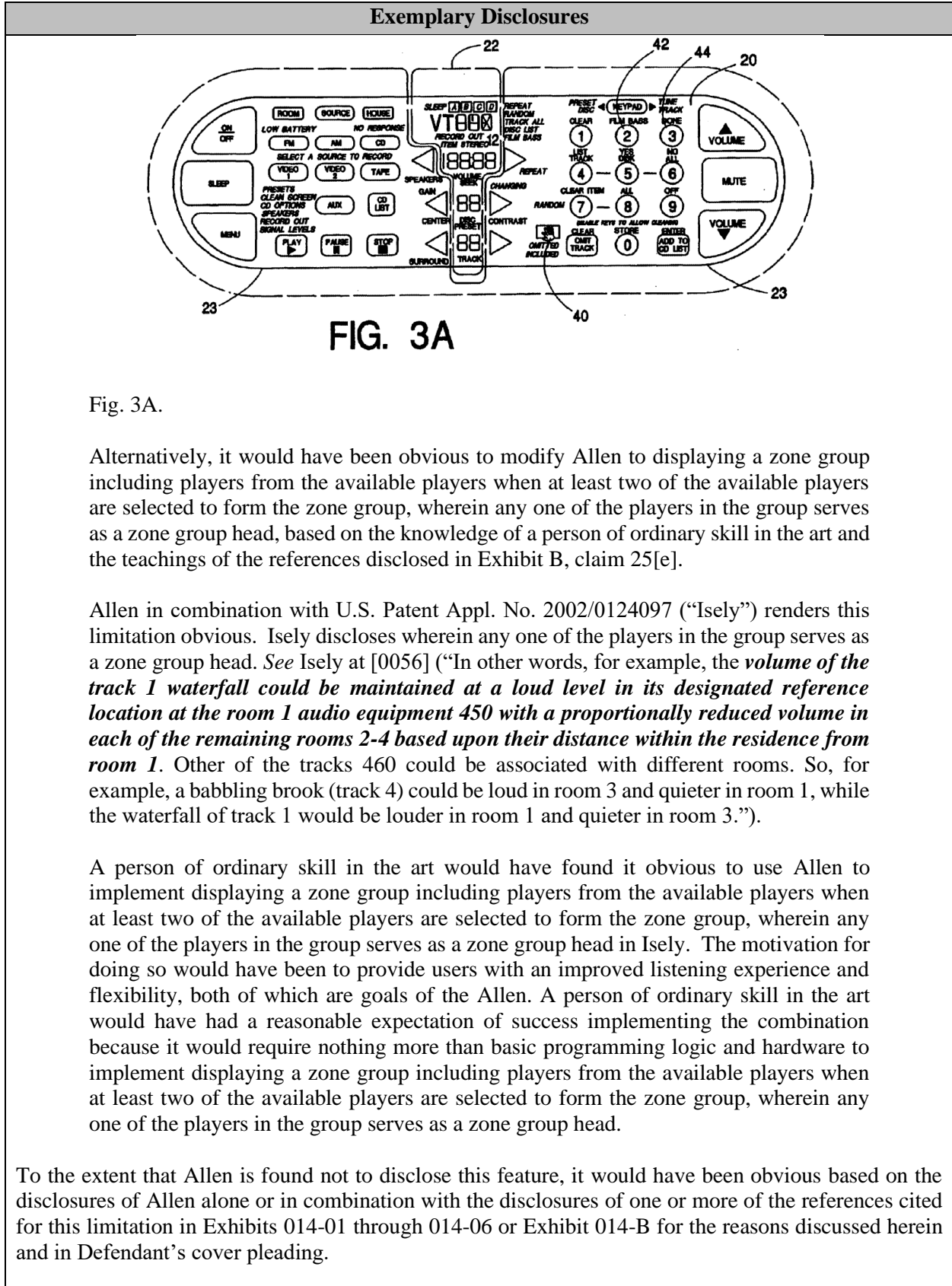


Fig. 3A.

Alternatively, it would have been obvious to modify Allen to displaying a zone group including players from the available players when at least two of the available players are selected to form the zone group, wherein any one of the players in the group serves as a zone group head, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[e].

Allen in combination with U.S. Patent Appl. No. 2002/0124097 (“Isely”) renders this limitation obvious. Isely discloses wherein any one of the players in the group serves as a zone group head. *See Isely at [0056] (“In other words, for example, the volume of the track 1 waterfall could be maintained at a loud level in its designated reference location at the room 1 audio equipment 450 with a proportionally reduced volume in each of the remaining rooms 2-4 based upon their distance within the residence from room 1. Other of the tracks 460 could be associated with different rooms. So, for example, a babbling brook (track 4) could be loud in room 3 and quieter in room 1, while the waterfall of track 1 would be louder in room 1 and quieter in room 3.”)*

A person of ordinary skill in the art would have found it obvious to use Allen to implement displaying a zone group including players from the available players when at least two of the available players are selected to form the zone group, wherein any one of the players in the group serves as a zone group head in Isely. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement displaying a zone group including players from the available players when at least two of the available players are selected to form the zone group, wherein any one of the players in the group serves as a zone group head.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

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25[f] synchronizing all players in the zone group in accordance with the zone group head:

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“Referring now to FIG. 3a, there is shown an example of a user interface screen 20 of a remote control unit 14. User interface screen 20 includes an indicator area 22 that is used to indicate current parameter values of a user selected device. The remainder of the screen may be employed by the user to transmit commands to system controller 10. Indicator area 22 typically consists of LCD segments that may be selectively energized so that they are visible (hereinafter “illuminated”) so that the set of segments can be used to form a variety of different alphanumeric characters, depending on the device the user is controlling. So, for example, the LCD segments used to form “FM” in FIG. 3b (the user interface screen when the user is controlling the FM tuner) are used to form “CD”. in FIG. 3c (the user interface screen when the user is controlling a CD player).” 4:59-5:6.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the

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graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

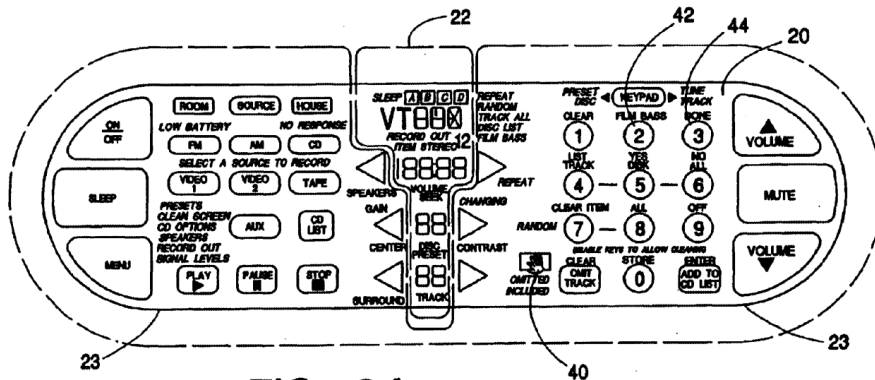


FIG. 3A

Fig. 3A.

Alternatively, it would have been obvious to modify Allen to synchroniz[e] all players in the zone group in accordance with the zone group head, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[f].

Allen in combination with U.S. Patent Appl. No. 2002/0124097 (“Isely”) renders this limitation obvious. Isely discloses synchronizing all players in the zone group in accordance with the zone group head. *See* Isely at [0056] (“In other words, for example, the *volume of the track 1 waterfall could be maintained at a loud level in its designated reference location at the room 1 audio equipment 450 with a proportionally reduced volume in each of the remaining rooms 2-4 based upon their distance within the residence from room 1.* Other of the tracks 460 could be associated with different rooms. So, for example, a babbling brook (track 4) could be loud in room 3 and quieter in room 1, while the waterfall of track 1 would be louder in room 1 and quieter in room 3.”); [0063] (“The audio signal is distributed to a *plurality of the audio devices 305, 405 based on the defined relationships and the control input associated with the characteristic(s) on which the defined relationship is based (block 630).* An update to the control input specifying the characteristic(s) may be periodically received from a user (block 640). Where such an update is received (block 640), the relationship may be redefined if Such a change is specified in the control input or may be simply applied to respective Streams for different ones of the audio devices 305, 405 based on the existing relationships for distribution to the devices at block 630.”). A person of ordinary skill in the art would have found it obvious to use Allen to implement synchronizing all players in the zone group in accordance with the zone group head disclosed in Isely. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to allow synchronizing all players in the zone group in accordance with the zone group head.

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To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**25[g] adjusting a volume meter represented by an averaged value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user:**

Allen discloses this feature. *See, e.g.*, the following:

“In another aspect of the invention, an audio system includes a system controller, adapted to receive control signals from a remote control device and to transmit the control signals to a plurality of remote locations. The system controller includes output terminals adapted to accommodate intercoupling circuitry intercoupling the system controller and a sound reproduction device; and sensors for providing connection signals representative of which output terminals are connected to intercoupling circuitry. The remote control device includes illuminatable graphic figures corresponding to each of the terminals and illuminating circuitry responsive to the connection signals for illuminating only those graphic figures corresponding to output terminals to which intercoupling circuitry is connected.” 1:50-63.

“System controller 10 is in turn adapted to transmit control signals and audio signals to a plurality of sound reproduction devices 12, which may be located in different rooms 15 in a house.” 3:16-19.

“Referring now to FIG. 3a, there is shown an example of a user interface screen 20 of a remote control unit 14. User interface screen 20 includes an indicator area 22 that is used to indicate current parameter values of a user selected device.” 4:59-63.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For

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example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“If the volume of the sound reproduction device in room A is adjusted upward, the volume of B is adjusted upward also, maintaining the 30 offset.” 6:1-4.

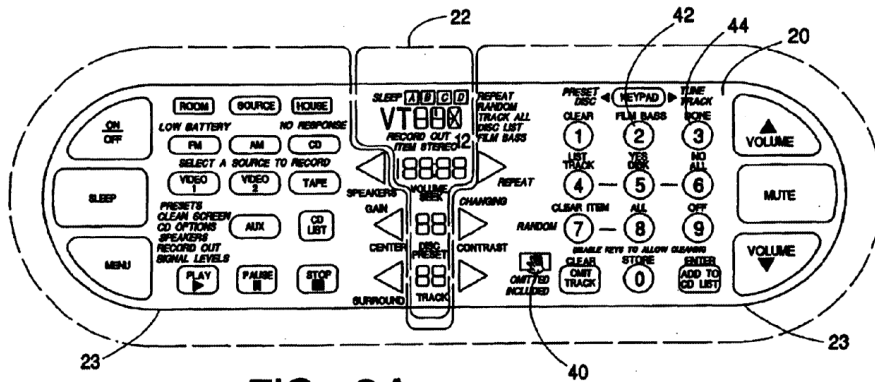


FIG. 3A

Fig. 3A.

Alternatively, it would have been obvious to modify Allen to include adjusting a volume meter represented by an averaged value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 25[g].

Allen in combination with Geiwitz Prov. renders this limitation obvious. Geiwitz Prov. discloses an adjustable volume meter represented by an averaged value of audio volumes of the players in the group of audio volumes of the players in the group. See Geiwitz Prov. at Fig. 103:

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Figure 103

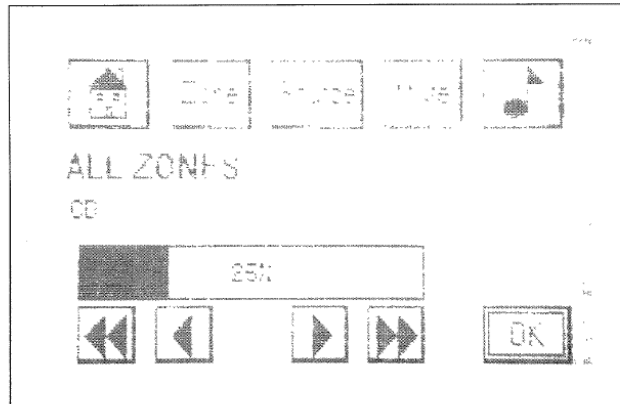


Figure 103 shows that all zones are being controlled, the source is the CD player and the volume is 25%. Any changes made in this configuration will change each zone connected to the system simultaneously.

A person of ordinary skill in the art would have found it obvious to use Allen to implement an adjustable volume meter represented by a value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user in view of Geiwitz Prov. Further, it would have been obvious to use an average audio volumes of the players in the group for adjustable volume meter. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement an adjustable volume meter represented by a averaged value of audio volumes of the players in the group wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user.

Allen in combination with Yamaha Personal Receiver RP U-200 system (“Yamaha”) renders this limitation obvious. Yamaha discloses an adjustable group volume meter of the players in the group. See Yamaha Manual at E-22 (disclosing an adjustable group volume meter).

**Exemplary Disclosures**

**3 Volume control**

You can adjust the volume by dragging the indicator or by clicking the up (▲) and down (▼) arrows.

You can also alternately turn on and off the speakers by clicking the speaker icon below.

A person of ordinary skill in the art would have found it obvious to use Allen to implement an adjustable volume meter represented by a value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user in view of Yamaha. Further, it would have been obvious to use an average audio volumes of the players in the group for adjustable volume meter. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement an adjustable volume meter represented by a averaged value of audio volumes of the players in the group wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user.

Allen in combination with C-Media Xear renders this limitation obvious. Yamaha discloses an adjustable group volume meter of the players in the group. *See* C-Media Xear 3d Sound Solution User Manual, Rev. 2.1, May 21, 2002 (“2.1 Manual”) (GOOG-SONOSITC-PA-00013726) (disclosing an adjustable group volume meter).

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**Volume:** This is the master control over all outputs. The power of an outputRe signal is determined by both of the volume slider and the slider for the individual output. To modify all the outputs, adjust the volume slider. To change individual output(s), adjust its(their) slider(s).

**CD:** Regulates the CD drive audio input level.

A person of ordinary skill in the art would have found it obvious to use Allen to implement an adjustable volume meter represented by a value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user in view of C-Media Xear. Further, it would have been obvious to use an average audio volumes of the players in the group for adjustable volume meter. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement an adjustable volume meter represented by a averaged value of audio volumes of the players in the group wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user.

Allen in combination with KR 100265712 (“Moon”) renders this limitation obvious. Moon discloses the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating that the volumes of each of the players in the player group should be adjusted in scale. *See Moon at Abstract (“Audiovisual reproduction system comprising a central unit managing a sound control circuit, and a telecommunications modem connected to a distribution network controlled by a host server, through a multitask operating system created around a tools and services library, characterized in that the operating system comprises a function that adjusts the sound control circuit to couple volumes in the various areas in which the loudspeakers in the audiovisual reproduction system are used, this function being accessible through a management mode of the multitask operating system, the coupling maintaining the ratios between the various volumes in each area when the volume in one area is modified.”)*. A person of ordinary skill in the art would have found it obvious to use Allen to implement an adjustable volume meter represented by a value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user disclosed in Moon. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement an

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adjustable volume meter represented by a value of audio volumes of the players in the group, wherein said adjusting of the volume meter includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user.

Allen in combination with U.S. Patent No. 7,424,117 (“Herberger”) renders this limitation obvious. Herberger discloses the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating that the volumes of each of the players in the player group should be adjusted in scale. *See, e.g.*, Herberger at 8:56-9:21 (“In still another preferred embodiment, there is provided a method substantially as described above, but wherein a graphical representation of the spatial distribution of the sound image of the current song(s) is continuously displayed on an attached computer screen. As is generally illustrated in FIG. 9, in a preferred arrangement a computer display device 910 will exhibit icons 920 (or any other indicia which could represent the speakers) which are preferably positioned on the screen in an arrangement which reflects the physical placement of the speakers 14-24 within the room. Drawn on computer display device 910 are preferably rays 940 and 950 which correspond to the audio programs that are beginning and ending, respectively. That is, ray 940 indicates the spatial location of the beginning audio program, and ray 950 indicates the spatial location of the ending audio program. In the preferred embodiment, when one of the rays is pointed directly at one of the speaker icons 920 that will represent the case where the associated audio program is being heard almost exclusively through the corresponding speaker. That being said, it should be noted that in some embodiments the widths of the rays 940 and 950 will be varied to represent the case where each sound source is heard through multiple speakers in the room, with the width of the ray preferably being chosen so that it includes all speakers which, at that instant, are playing sound from the corresponding audio program. In still other arrangements, the width of the ray might correspond to the average volume level of the audio program with, for example, wider rays corresponding to a higher volume level, thereby making it easy to tell which audio program is increasing in volume and which is fading. Finally, those of ordinary skill in the art will recognize that the color, length, etc., of the ray can be made to vary depending on any parameter that would be of interest to the user.”). A person of ordinary skill in the art would have found it obvious to use Allen to implement the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating that the volumes of each of the players in the player group should be adjusted in scale disclosed in Herberger. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating that the volumes of each of the players in the player group should be adjusted in scale.

Allen in combination with U.S. Patent Application Publication No. 2005/0031129 (“Devantier”) renders this limitation obvious. Devantier discloses the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating

**Exhibit 014-06: U.S. Patent No. 6,703,940 (“Allen”)**

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that the volumes of each of the players in the player group should be adjusted in scale. *See, e.g.*, Devantier at [0151] (“In a multiple listening position audio system, the statistical analyses may be based on any mathematical tool that evaluates the predicted transfer functions, such as taking the average, standard deviation, spatial standard deviation, spatial envelope, or spatial maximum average across the seats. For example, the spatial average at 20 Hz is  $-15.94$  dB, which is calculated by averaging the amplitude readings at 20 Hz for seats 1 to 5. The spatial variance at 20 Hz is  $-4.72$  dB, which is calculated by taking the variance of the amplitude readings at 20 Hz for seats 1 to 5. The spatial standard deviation is  $2.17$  dB for 20 Hz and may be computed as the square root of the spatial variance. The spatial envelope may be the difference between the highest and lowest readings. At 20 Hz, the highest and lowest readings are  $-12.99$  dB and  $-18.13$  dB, so that the spatial envelope is  $5.14$  dB. The spatial maximum minus average may be computed by selecting the maximum value and subtracting the average. For 20 Hz, the maximum value is  $-12.99$  dB and the average is  $15.94$  dB, so that the spatial max-average is  $2.96$ .”). A person of ordinary skill in the art would have found it obvious to use Allen to implement the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating that the volumes of each of the players in the player group should be adjusted in scale disclosed in Devantier. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement the group-level input to adjust the volume associated with the player group further causes the controller to send an instruction to one of the players in the player group, the instruction indicating that the volumes of each of the players in the player group should be adjusted in scale.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**32[pre] The apparatus of claim 25, wherein said synchronizing all players in the Zone group comprises:**

*See* claim 25[f].

**32[a] causing all players in the zone group to play an identical audio source; and:**

*See* claim 25[f].

**32[b] presenting the zone group in a manner that indicates a grouping:**

*See* claim 25[e].

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**35[pre] The apparatus of claim 25, wherein the processor executing the code in the memory to cause the application module and the screen driver to perform operations of:**

*See* claim 25[c].

**35[a] selecting the zone group to be de-grouped from the first list:**

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

Exemplary Disclosures

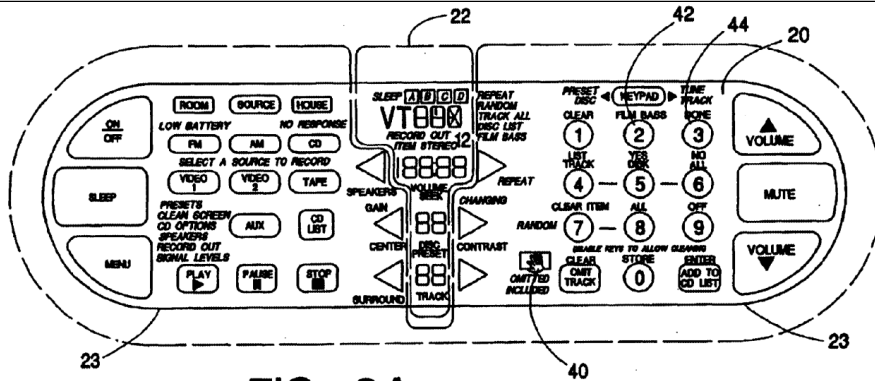


FIG. 3A

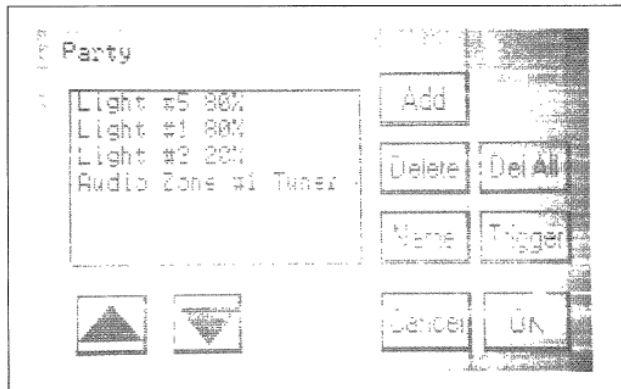
Fig. 3A.

Alternatively, it would have been obvious to modify Allen to selecting the Zone group to be de-grouped from the first list, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 35[a].

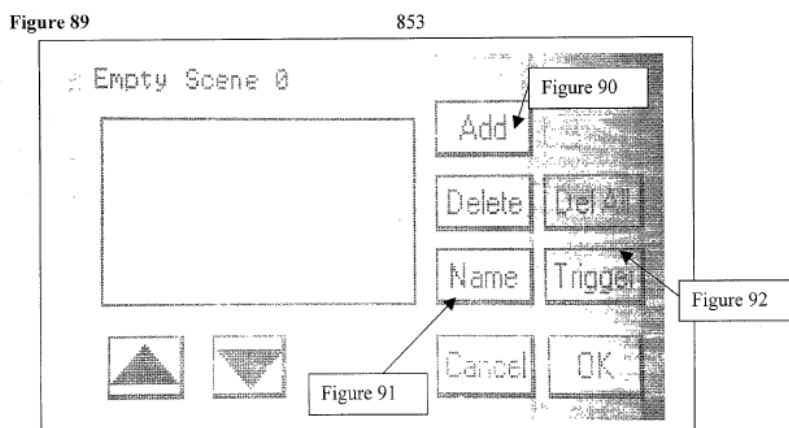
Allen in combination with Geiwitz Prov. renders this limitation obvious. Geiwitz Prov. discloses selecting the zone group to be de-grouped from the first list. See Geiwitz Prov. at Figs. 89 and 96 (allowing de-grouping by the use of “Del All” button).

Figure 96

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A person of ordinary skill in the art would have found it obvious to use Allen to implement a capability to select the zone group to be de-grouped from the first list disclosed in Geiwitz Prov. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement a capability to select the zone group to be de-grouped from the first list.

Allen in combination with appendixes to U.S. Patent Appl. Pub. No. 2004/0176141 (“Christensen”) renders this limitation obvious. Christensen discloses selecting the zone group to be de-grouped from the first list. *See* Christensen at 33.

**Removing a Zone**

- **Select a Zone in the Zones in this Project text box.**
- **Click Remove below the Zones in this Project text box.**

A person of ordinary skill in the art would have found it obvious to use Allen to implement a capability to select the zone group to be de-grouped from the first list disclosed in Christensen. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement a capability to select the zone group to be de-grouped from the first list.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**35[b] displaying on the screen an another list showing all the players within the zone group to be de-grouped:**

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Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

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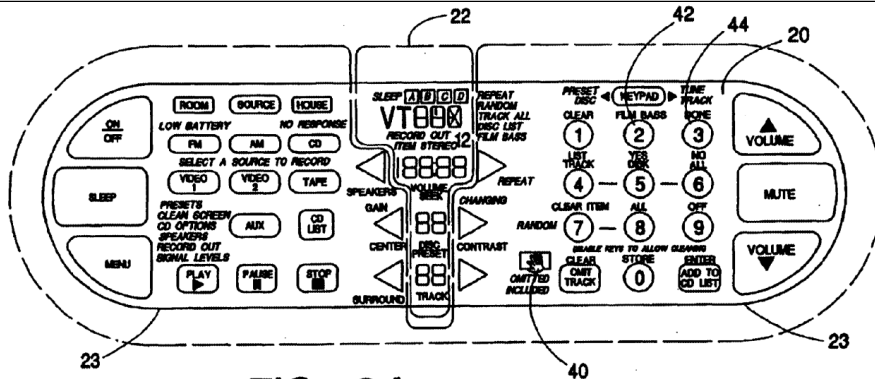


FIG. 3A

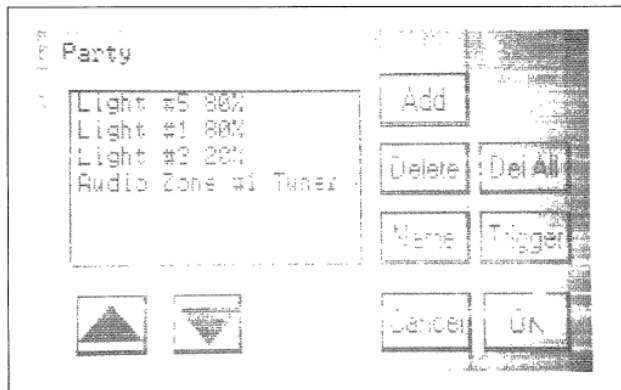
Fig. 3A.

Alternatively, it would have been obvious to modify Allen to display[] on the screen an another list showing all the players within the zone group to be de-grouped, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 35[b].

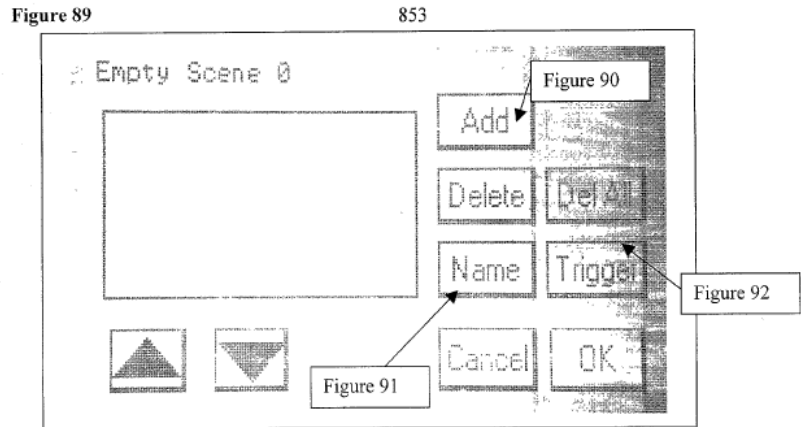
Allen in combination with Geiwitz Prov. renders this limitation obvious. Geiwitz Prov. discloses displaying on the screen a list showing all the players within the zone group to be de-grouped. See Geiwitz Prov. at Figs. 89 and 96 (allowing de-grouping by the use of “Deleted” and “Del All” buttons).

Figure 96

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A person of ordinary skill in the art would have found it obvious to use Allen to display on the screen a list showing all the players within the zone group to be de-grouped in Geiwitz Prov. as another list. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to display on the screen an another list showing all the players within the zone group to be de-grouped.

Allen in combination with appendixes to U.S. Patent Appl. Pub. No. 2004/0176141 (“Christensen”) renders this limitation obvious. Christensen discloses displaying on the screen an another list showing all the players within the zone group to be de-grouped. See Christensen at 33-34 (displaying another list on a confirmation dialog box to show all players within the zone group to be de-grouped).

**Removing a Zone**

- Select a **Zone** in the **Zones in this Project** text box.
- Click **Remov** below the **Zones in this Project** text box.
- **Click OK at the conformation dialog box.**
- **The Zone has been removed.**

A person of ordinary skill in the art would have found it obvious to use Allen to implement a capability to displaying on the screen an another list showing all the players within the zone group to be de-grouped disclosed in Christensen. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to display on the screen an another list showing all the players within the zone group to be de-grouped.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited

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for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**35[c] selecting one or more players from the another list:**

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

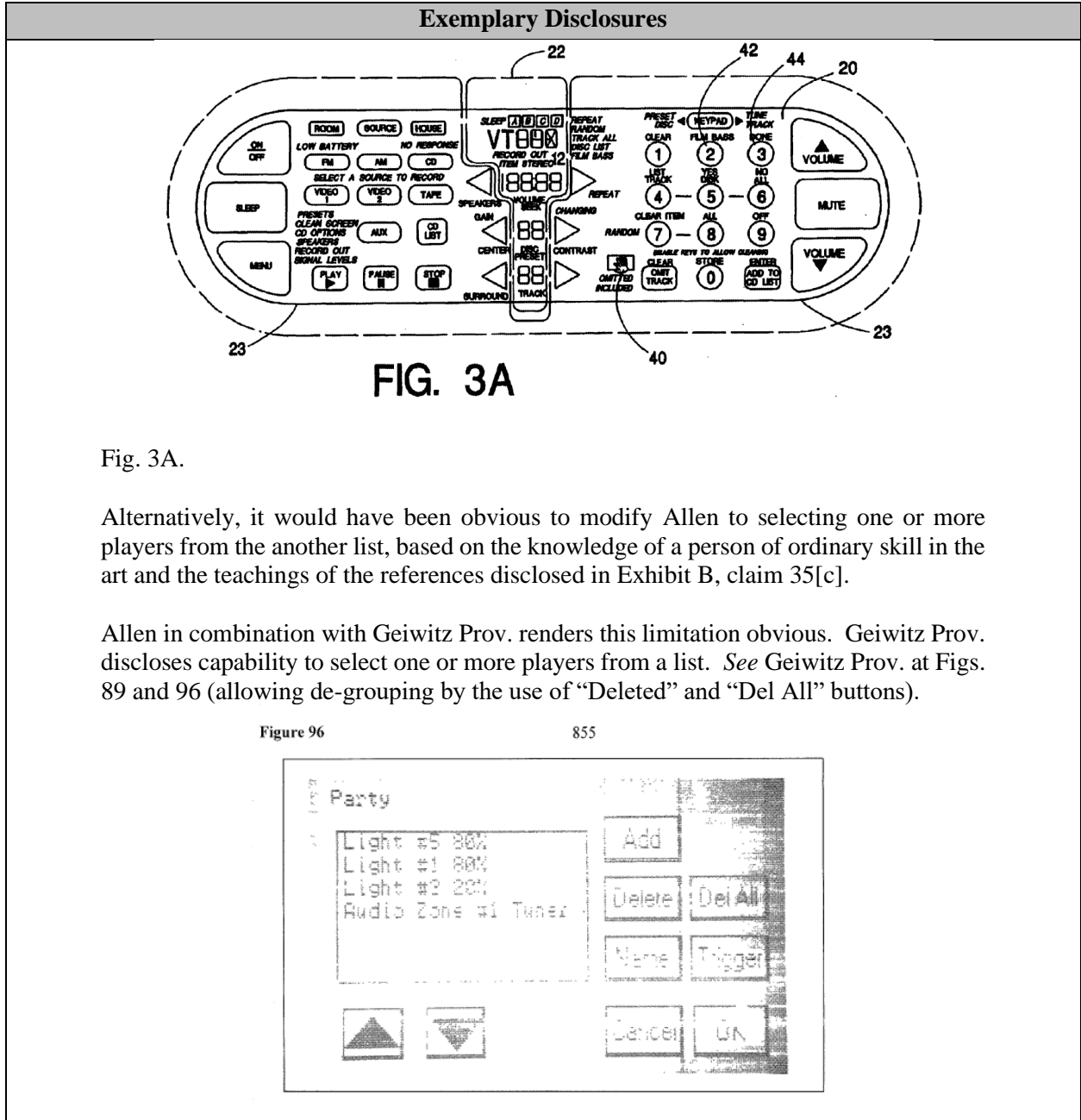


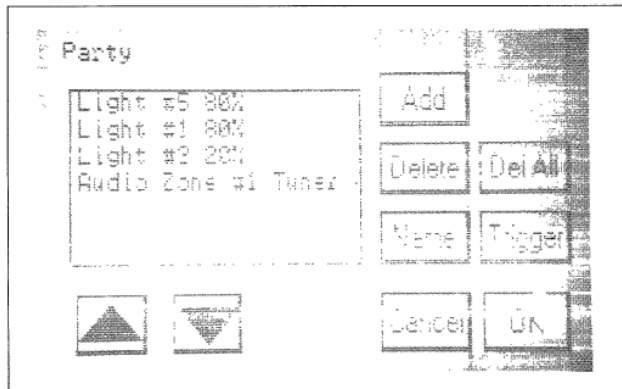
Fig. 3A.

Alternatively, it would have been obvious to modify Allen to selecting one or more players from the another list, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 35[c].

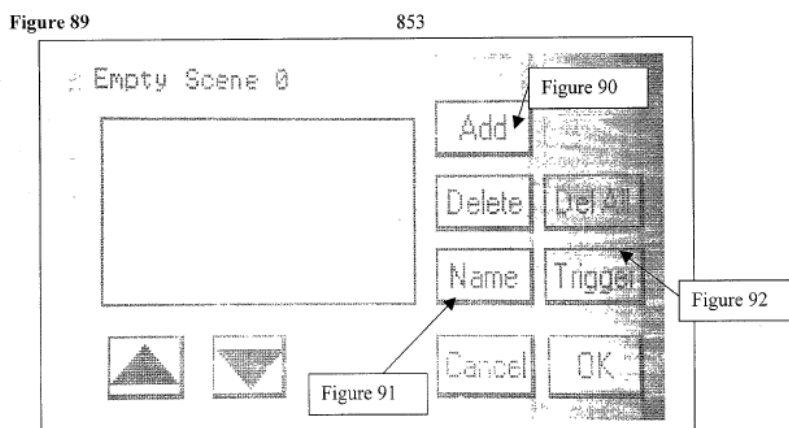
Allen in combination with Geiwitz Prov. renders this limitation obvious. Geiwitz Prov. discloses capability to select one or more players from a list. See Geiwitz Prov. at Figs. 89 and 96 (allowing de-grouping by the use of “Deleted” and “Del All” buttons).

Figure 96

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A person of ordinary skill in the art would have found it obvious to use Allen to implement capability to select one or more players from a list in Geiwitz Prov. as capability to select one or more players from the another list. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement capability to select one or more players from the another list.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**35[d] disassociating the selected players from the zone group:**

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures

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representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

Alternatively, it would have been obvious to modify Allen to disassociat[e] the selected players from the Zone group, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 35[d].

Allen in combination with Geiwitz Prov. renders this limitation obvious. Geiwitz Prov. discloses disassociating the selected players from the zone group. See Geiwitz Prov. at Figs. 89 and 96 (allowing disassociating by the use of “Deleted” and “Del All” buttons).

Figure 96 855

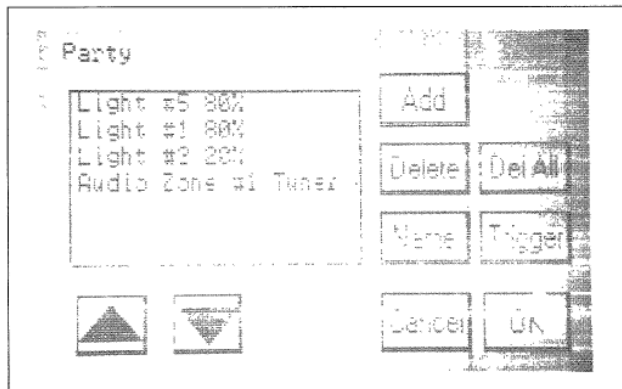
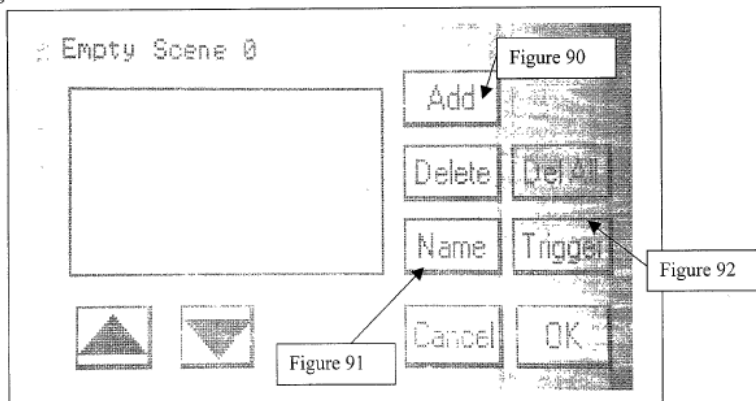


Figure 89 853



A person of ordinary skill in the art would have found it obvious to use Allen to implement a capability to disassociate the selected players from the zone group in

**Exhibit 014-06: U.S. Patent No. 6,703,940 (“Allen”)**

<b>Exemplary Disclosures</b>
<p>Geiwitz Prov. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement a capability to disassociate the selected players from the zone group.</p>
<p>To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.</p>
<p><b>38[pre] An apparatus for manipulating a plurality of players, the apparatus comprising::</b></p>
<p><i>See</i> claim 25[pre].</p>
<p><b>38[a] a screen; a screen driver commanding the screen; an input interface:</b></p>
<p><i>See</i> claim 25[a].</p>
<p><b>38[b] a network interface:</b></p>
<p><i>See</i> claim 25[b].</p>
<p><b>38[c] a memory for storing code for an application module a processor coupled to the memory, the input interface, the screen driver and the network interface, the processor executing the code in the memory to cause the application module and the screen driver to perform operations of:</b></p>
<p><i>See</i> claim 25[c].</p>
<p><b>38[d] displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players:</b></p>
<p>Allen discloses this feature. <i>See, e.g.</i>, the following:</p> <p>“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures</p>

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representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

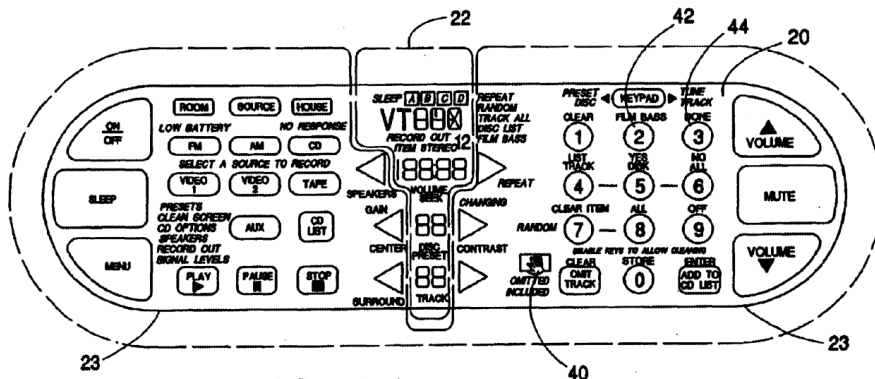


FIG. 3A

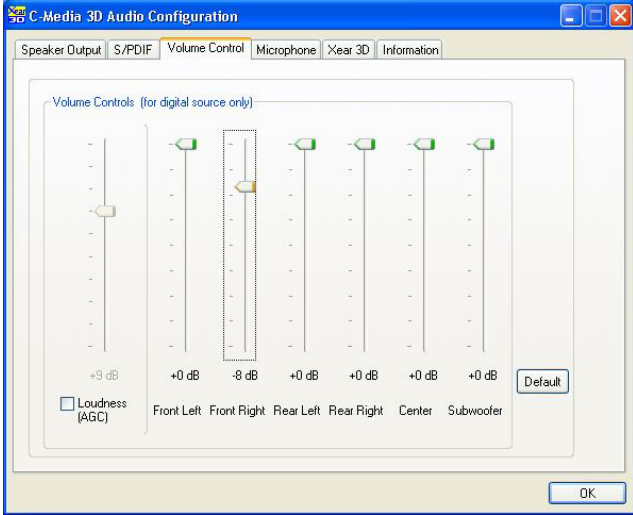
Fig. 3A.

Alternatively, it would have been obvious to modify Allen to include displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 38[d].

Allen in combination with C-Media Xear renders this limitation obvious. C-Media Xear discloses displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players. See C-Media Xear 3D Manual at 23.

**Exhibit 014-06: U.S. Patent No. 6,703,940 (“Allen”)**

**Exemplary Disclosures**

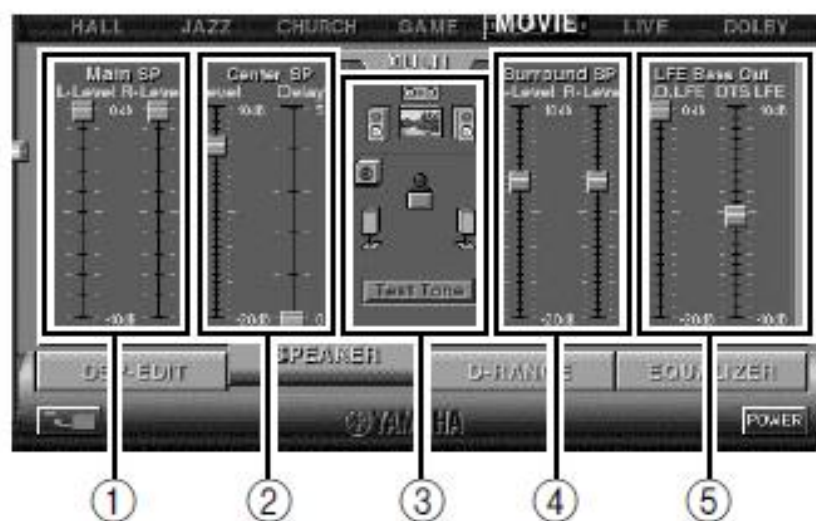


The screenshot shows a software window titled "C-Media 3D Audio Configuration". It has several tabs: "Speaker Output", "S/PDIF", "Volume Control", "Microphone", "Xear 3D", and "Information". The "Volume Control" tab is active, displaying a "Volume Controls (for digital source only)" section. This section contains seven vertical volume sliders. From left to right, they are labeled: "Front Left", "Front Right", "Rear Left", "Rear Right", "Center", and "Subwoofer". The "Front Left" slider is set to +9 dB. The "Front Right" slider is set to -8 dB and is highlighted with a dashed rectangular box. The other sliders are set to +0 dB. Below the sliders, there is a checkbox for "Loudness (AGC)" which is unchecked, and a "Default" button. An "OK" button is located at the bottom right of the window.

A person of ordinary skill in the art would have found it obvious to use Allen to implement displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players disclosed in C-Media Xear. Further, it would have been obvious to display on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players .

Allen in combination with Yamaha Personal Receiver RP U-200 system (“Yamaha”) renders this limitation obvious. Yamaha discloses displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players. *See* Yamaha Manual at E-24.

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A person of ordinary skill in the art would have found it obvious to use Allen to implement displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players disclosed in Yamaha. Further, it would have been obvious to display on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement displaying on a screen a list showing a plurality of volume meters, at least one of the volume meters representing an audio volume of one of the players.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**38[e] and another one of the volume meters representing an audio volume of a group of players, if there is such a group; and:**

Allen discloses this feature. *See, e.g.*, the following:

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and

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information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

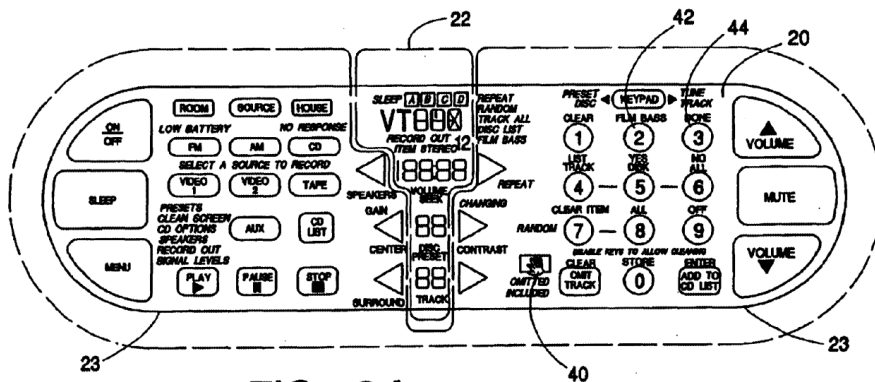


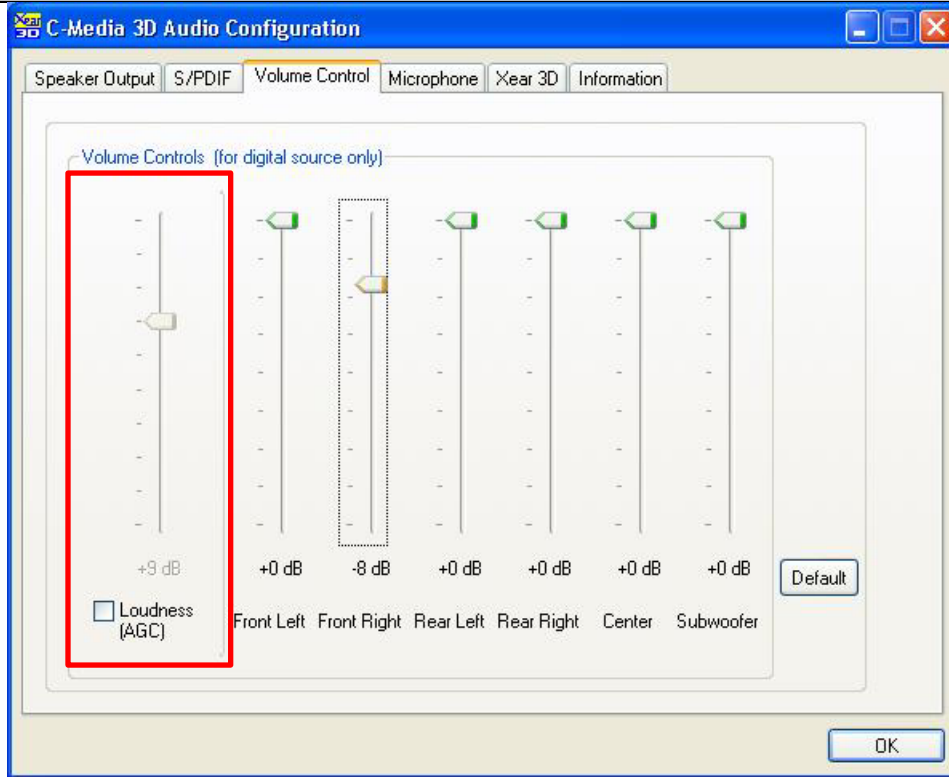
FIG. 3A

Fig. 3A.

Alternatively, it would have been obvious to modify Allen to include displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 38[e].

Allen in combination with C-Media Xear renders this limitation obvious. C-Media Xear discloses displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group. See C-Media Xear 3D Manual at 23.

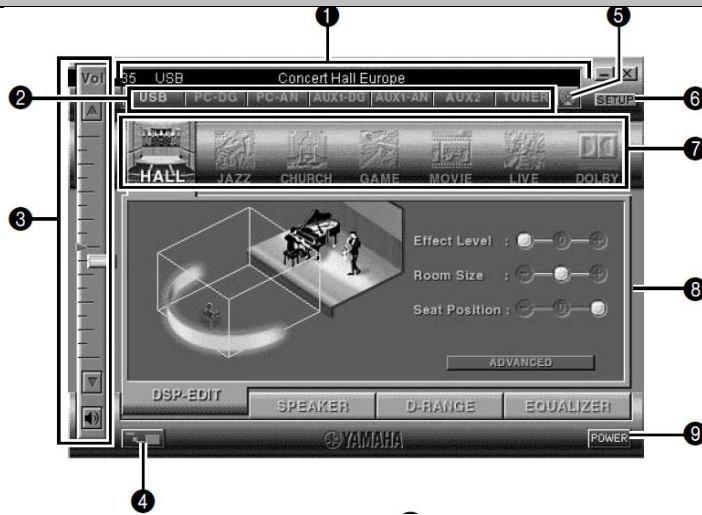
Exemplary Disclosures



A person of ordinary skill in the art would have found it obvious to use Allen to implement displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group disclosed in C-Media Xear. Further, it would have been obvious to display another one of the volume meters representing an audio volume of a group of players, if there is such a group. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group.

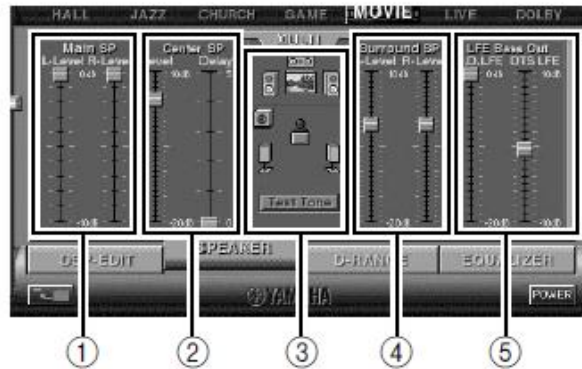
Allen in combination with Yamaha Personal Receiver RP U-200 system (“Yamaha”) renders this limitation obvious. Yamaha discloses displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group. See Yamaha Manual at E-21, E-24.

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**3 Volume control**

You can adjust the volume by dragging the indicator or by clicking the up (▲) and down (▼) arrows. You can also alternately turn on and off the speakers by clicking the speaker icon below.



A person of ordinary skill in the art would have found it obvious to use Allen to implement displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group disclosed in Yamaha. Further, it would have been obvious to display another one of the volume meters representing an audio volume of a group of players, if there is such a group. The motivation for doing so would have been to provide users with an improved listening experience and flexibility, both of which are goals of the Allen. A person of ordinary skill in the art would have had a reasonable expectation of success implementing the combination because it would require nothing more than basic programming logic and hardware to implement displaying another one of the volume meters representing an audio volume of a group of players, if there is such a group.

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited

**Exhibit 014-06: U.S. Patent No. 6,703,940 (“Allen”)**

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for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**38[f] adjusting one of the volume meters as desired after one of the volume meters from the list is selected, wherein the one of the volume meters is for the group of players, represented by an averaged value of audio volumes of the players in the group, and said adjusting of the one of the volume meters includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user:**

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered.” 5:50-58.

“In addition to only displaying graphic figures representing commands appropriate to a sound reproduction device or signal source, the remote control device may display only graphical figures that represent commands that are appropriate to certain configurations of audio devices. If there is no device attached to a terminal, then the graphical figures pertaining to the room representing that terminal may not be displayed.” 6:14-21.

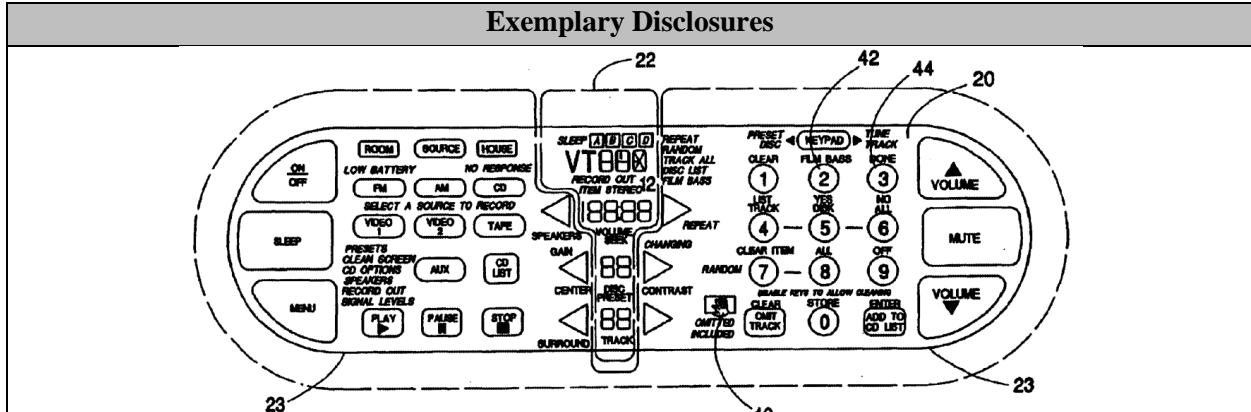


FIG. 3A

Fig. 3A.

Alternatively, it would have been obvious to modify Allen to include a capability where adjusting one of the volume meters as desired after one of the volume meters from the list is selected, wherein the one of the volume meters is for the group of players, represented by an averaged value of audio volumes of the players in the group, and said adjusting of the one of the volume meters includes changing a volume of each of the group of players synchronously in accordance with an adjustment made by a user, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 38[f].

Allen in combination with C-Media Xear and/or Yamaha renders this this limitation obvious. C-Media Xear and Yamaha discloses an adjustable volume meters, wherein the one of the volume meters is for the group of players, represented by an averaged value of audio volumes of the players in the group. See C-Media Xear 3D Manual at 23; Yamaha Manual at E-21, E-24; see also claims 38[e] and 38[f].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**42 The apparatus of claim 38, wherein the processor executing the code in the memory causes the application module and the screen driver to perform operations of maintaining relative volume loudness difference among each of the players in the group:**

Allen discloses this feature. See, e.g., the following:

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered. If the volume of the displayed room is adjusted such that one of the non-displayed rooms reaches a maximum or minimum, the

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offset is remembered, and when the volume of the displayed room is adjusted such that the non-displayed room is back in range, then the volume in the non-displayed room will resume changing, and the offset between the rooms is maintained. For example if room A is the displayed room and the volume of the sound reproduction device in room A is 50, and room B is not displayed and the volume of the sound reproduction device in room B is 80, there is a 30 offset between the rooms. If the volume of the sound reproduction device in room A is adjusted upward, the volume of B is adjusted upward also, maintaining the 30 offset. If the volume of B reaches 100 (the maximum volume), the volume will not be adjusted upward any more. If the volume of the sound reproduction device in room A is adjusted downward, the volume of the sound reproduction device in room B will remain at 100 until the volume of the sound reproduction device in room A is at 70, and any continued reduction in the volume of the sound reproduction device in room A will also reduce the volume of the sound reproduction device in room B so that the 30 offset between the rooms is maintained.” 5:50-6:13.

Alternatively, it would have been obvious to modify Allen to include a capability to perform operations of maintaining relative volume loudness difference among each of the players in the group, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 42.

Allen in combination with C-Media Xear and/or Yamaha renders this this limitation obvious. C-Media Xear and Yamaha discloses an adjustable volume meters, wherein the one of the volume meters is for the group of players, represented by an averaged value of audio volumes of the players in the group. *See* C-Media Xear 3D Manual at 23; Yamaha Manual at E-21, E-24; *see also* claims 38[e] and 38[f].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.

**43 The apparatus of claim 38, wherein the one of the volume meters from the list selected is for the group of players, and wherein said adjusting the one of the volume meters includes causing an equal change to a volume of each of the players in the group:**

Allen discloses this feature. *See, e.g.*, the following:

“Sound reproduction devices in different rooms may “share” the same source, that is, select the same source. A source being shared by multiple rooms may be “synchronized” in some aspects, so, for example, changing the volume in one room also changes the volume in another room.” 4:8-13.

“The audio device being controlled can be selected by the user by pressing a graphic figure in the command input area of screen. So, for example, the user can issue commands to a audio signal source by pressing the appropriate “source” graphic figure in the on the screen (for example, in FIG. 3a, the “FM”, “AM”, “CD”, “Video 1”, “Video 2”, and “TAPE” graphic figures). Once a source has been selected, only graphic figures representing commands that pertain to that source are illuminated, and

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information concerning that source is displayed in the indicator area 22. The user can issue commands to a room or combination of rooms by selecting the room or combination of rooms by pressing the “Room” graphic figure, which toggles through all rooms (the A, B, C, D, graphic figures in indicator area 22) and combination of rooms which have sound reproduction devices 22 connected to them. Once the sound reproduction device (or combination of rooms) has been selected, only graphic figures representing commands appropriate to the sound reproduction device or devices in that room or combination of rooms are displayed, and information concerning the sound reproduction device is displayed in indicator area 22.” 5:28-49.

“If two or more rooms are sharing a device, the user can select each room individually, or both rooms collectively. This allows some adjustments to be made to each sound reproduction device individually, or both sound reproduction devices collectively. For example, the volume can be set individually, or adjusted collectively. If the volume is changed collectively, all rooms are adjusted accordingly from their starting position, and any offset between the rooms is remembered. If the volume of the displayed room is adjusted such that one of the non-displayed rooms reaches a maximum or minimum, the offset is remembered, and when the volume of the displayed room is adjusted such that the non-displayed room is back in range, then the volume in the non-displayed room will resume changing, and the offset between the rooms is maintained. For example if room A is the displayed room and the volume of the sound reproduction device in room A is 50, and room B is not displayed and the volume of the sound reproduction device in room B is 80, there is a 30 offset between the rooms. If the volume of the sound reproduction device in room A is adjusted upward, the volume of B is adjusted upward also, maintaining the 30 offset. If the volume of B reaches 100 (the maximum volume), the volume will not be adjusted upward any more. If the volume of the sound reproduction device in room A is adjusted downward, the volume of the sound reproduction device in room B will remain at 100 until the volume of the sound reproduction device in room A is at 70, and any continued reduction in the volume of the sound reproduction device in room A will also reduce the volume of the sound reproduction device in room B so that the 30 offset between the rooms is maintained.” 5:50-6:13.

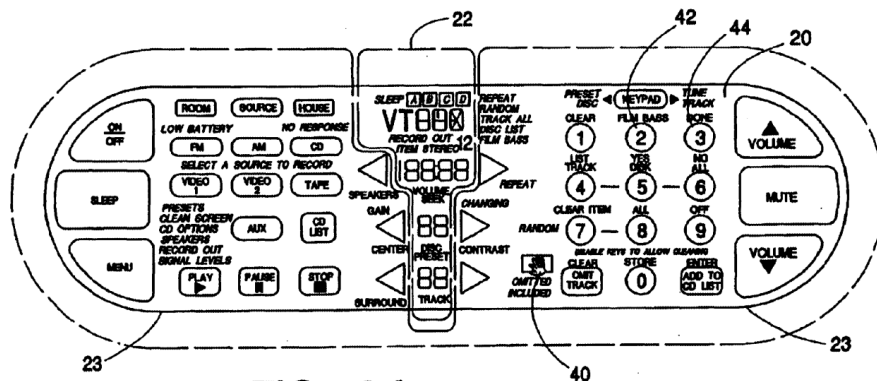


FIG. 3A

Fig. 3A.

**Exhibit 014-06: U.S. Patent No. 6,703,940 (“Allen”)**

**Exemplary Disclosures**

Alternatively, it would have been obvious to modify Allen to include a capability where adjusting the one of the volume meters includes causing an equal change to a volume of each of the players in the group, based on the knowledge of a person of ordinary skill in the art and the teachings of the references disclosed in Exhibit B, claim 43.

Allen in combination with C-Media Xear and/or Yamaha renders this this limitation obvious. C-Media Xear and Yamaha discloses an adjustable volume meters, wherein the one of the volume meters is for the group of players, represented by an averaged value of audio volumes of the players in the group. *See* C-Media Xear 3D Manual at 23; Yamaha Manual at E-21, E-24; *see also* claims 38[e] and 38[f].

To the extent that Allen is found not to disclose this feature, it would have been obvious based on the disclosures of Allen alone or in combination with the disclosures of one or more of the references cited for this limitation in Exhibits 014-01 through 014-06 or Exhibit 014-B for the reasons discussed herein and in Defendant’s cover pleading.