

## SPECIFICATION

## Record side identification apparatus

5 This invention generally relates to record disc players, and more particularly, to players suitable for use with a record bearing caddy.

In certain video disc systems, information is stored on a disc record in the form of geometric variations in the bottom of a continuous spiral groove disposed on the record surface. The variations in capacitance between an electrode incorporated in a groove-riding stylus and a conductive coating disposed on the record surface are sensed to reproduce the stored information. A capacitance-type video disc system is illustratively disclosed in U.S. Patent No. 3,842,194 (Clemens).

In such systems, it is advantageous to mount a groove-riding pickup stylus in a demountable cartridge. The player is provided with rails for guiding a carriage, having a compartment for receiving the pickup cartridge, along a path. The carriage is driven during playback along the carriage guiding rails in correlation with the motion of the groove-riding stylus. U.S. Patent No. 3,870,320 (Torrington), discloses a type of carriage translating system.

30 It is beneficial to enclose a record in a thin plastic caddy comprising a jacket and a record retaining spine. For record loading, an occupied caddy is inserted into an input slot provided in the player. The player is equipped with another arrangement, for guiding caddy insertion along a further path. A record extracting mechanism disposed in the player removes the retaining spine and the associated record (hereinafter "record assembly") from the jacket during subsequent jacket withdrawal, whereby the record assembly is retained in the player. The player is equipped with a platform for supporting the retained record assembly, when it is disposed in an elevated position. The retained record is transferred to the turntable for playback during motion of the platform to a depressed position. For subsequent record retrieval, the platform, with the retained record assembly resting thereon, is raised, and an empty jacket is inserted into the player, thereby returning the record assembly back into the jacket. Withdrawal of the caddy, effects record removal from the player. U.S. patent application, Serial No. 801,604 (Torrington), illustrates a system suitable for use with such a record caddy.

It is desirable that there be provided means for identifying the record side subject to playback. An apparatus, pursuant to the instant invention, includes sensing means subject to conditioning in a first and a second state respectively. Control means on the record spine conditions the sensing means in response to insertion of the caddy with a given

side thereof facing upward and downward. An indicating means, responsive to the condition of the sensing means is provided for indicating to the user of the player the record side subject to play.

It is also advantageous for the user to have an indication of the record side presented for playback as soon as the caddy is inserted into the player, for example, for loading a record therein.

Thus, in accordance with an embodiment of the invention, a sensing member is mounted in the player in the immediate vicinity of the input slot such that it is subject to deflection in a first direction when an occupied caddy is inserted into the player with a given side thereof facing upward, and is subject to deflection in a second direction, opposite to the first direction, in response to an occupied cover insertion with the given side thereof facing downward. Means, responsive to the direction of deflection of the sensing member, provide an indication of the record side subject to playback. Actuating means, subject to engagement with the spine upon cover arrival at the fully inserted position in the player, hold the sensing member in the location to which it was deflected during the cover insertion, throughout the period of retention of the spine in the player.

## IN THE DRAWINGS:

*Figure 1* illustrates a video disc player incorporating a record side identification apparatus pursuant to the principles of the present invention;

*Figure 2* shows a record caddy suitable for use with the player of Fig. 1;

*Figure 3* is an enlarged front view of a portion of the record caddy of Fig. 2;

*Figures 4 and 5* depict the operation of a record extracting mechanism mounted in the player of Fig. 1;

*Figure 6* is a plan view of the record side identification apparatus of Fig. 1;

*Figure 7* is a side view of the record side identification apparatus of Figs. 1 and 6.

*Figure 8* is a schematic illustration of a first embodiment of the record side identification apparatus of the instant invention;

*Figure 9* is a schematic representation of another embodiment of the record side identification apparatus in accordance with the present invention; and

*Figure 10* diagrammatically represents a further embodiment of the record side identification apparatus pursuant to the instant invention.

As shown in Fig. 1, a video disc player 10, incorporating the record side identification apparatus in accordance with the present invention, has an input slot 12 through which a record caddy 14, illustrated in Fig. 2, is inserted for loading an enclosed record into the player. A groove-riding, pickup stylus is

mounted in a demountable cartridge which is installed in a compartment provided in a carriage reciprocally mounted in the player. A flap 16 is disposed on the cover section of the pickup carriage. The pickup carriage is translated during playback in correlation with the motion of the groove-riding stylus to recover the recorded information from a turntable from a turntable supported record. A dial 18 is provided on the front instrument panel 20 of the player for indicating playing time. A function selection lever 22 projects through a slot in the instrument panel, and is subject to selective positioning in one of the three positions thereof: OFF, DISC IN/OUT and PLAY. To load a record, the function selection lever is moved to the DISC IN/OUT position, and an occupied caddy is inserted into the player. The enclosed record is then retained in the player when the caddy is withdrawn. To play the retained record, the function selection lever is shifted to the PLAY position. Actuation of a pause button 24 suspends carriage translation and lifts the pickup stylus away from a turntable-supported record. For active scanning of the record, a search button 26 is depressed, and the carriage is translated by means of a thumbwheel 28 while the pickup stylus is in engagement with the turntable-supported record. The carriage can be translated at a speed variable over a range of speeds and in either direction by the thumbwheel.

As shown in Figs. 2 and 3, the record caddy 14 comprises an outer jacket 30 and a record retaining member 32 removably located within the jacket. The retaining member comprises (1) an annular portion 34, that encircles the enclosed record 36, and (2) a spine portion 38, which serves as a closure to keep dust and debris from entering the record enclosing cavity. The spine has an opening 40 into which the latch arms 42 and 44 of a record extracting mechanism 46 (Figs. 3, 4, 5 & 6) protrude during arrival of a record caddy at a fully inserted position in the player.

As shown more clearly in Fig. 3, the spine 38 is provided with wedge-shaped portions 48 and 50 at each end thereof. The function of the wedge-shaped portions will be described later in conjunction with the description of the operation of the record side identification apparatus of the instant invention.

A platform 52 (Figs. 6 and 7), mounted within the player 10 and responsive to the position of the function selection lever, is subject to motion between an elevated position and a depressed position. The DISC IN/OUT position and the PLAY position of the function selection lever, respectively, corresponds to the elevated position and the depressed position of the platform. A pair of rails are mounted on the platform, and are provided with grooves for guiding caddy inser-

tion into the player along a path. Shown in Figs. 6 and 7 is one of the platform-mounted rails 54 having a caddy guiding groove 56.

The front ends of the caddy guiding grooves 70 are aligned with the input slot 12 when the platform is occupying the elevated position for facilitating caddy insertion and extraction.

To load a record into the player, the latch arms 42 and 44 are disposed in the closed condition (Fig. 4), the function selection lever is shifted to the DISC IN/OUT position to dispose the platform 52 in the elevated position, and an occupied caddy is inserted through the input slot 12. The latch arms 42 and 44 enter the opening 40 in the spine 38 as the caddy reaches the fully inserted position in the player. The engagement of the caddy with an actuating arm indexes the latch arms into the spread apart condition (Fig. 5), whereby the retaining member and the associated record (i.e., the record assembly) are locked to the platform. Subsequent withdrawal of the caddy removes the record assembly therefrom, thereby retaining the record assembly in the player resting on the raised platform. To transfer the retained record to a turntable 58, rotatably mounted within the player, the platform is lowered to the depressed position.

For record retrieval, the above sequence is reversed. The platform 52, with the record assembly resting thereon, is raised. The platform is provided with a set of depressible lifting pads (not shown) for aligning the record assembly resting thereon with the caddy guiding grooves to cause the return of the record assembly into an empty caddy during insertion thereof into the player. The engagement of the caddy with the actuating arm reindexes the latch arms to the closed condition, thereby freeing the record assembly from the player. Subsequent caddy withdrawal removes the record assembly therewith. It will be noted that throughout the above sequence the retaining member and the associated record always remain together, and that the orientation of one with respect to the other is constant.

In such players, it is desirable that the player be provided with means for identifying the record side subject to playback. Shown in Figs. 6 and 7 is an embodiment of a record side identification apparatus 60 in accordance with the instant invention. As shown therein, the apparatus includes a sensing member 62 which is fixedly secured to a clasp 64. The clasp 64 is, in turn, pivotally mounted to a platform-mounted bracket 66. The sensing member 62 tapers to a conical tip 68 at the end thereof adjacent to the input slot 12. When an occupied caddy 14 is inserted into the player with the the "SIDE ONE" of the spine 38 facing upward, the wedge-shaped portion 48 of the spine engages the conical tip 68 of the sensing member 62 to cause

deflection thereof in the upward direction. On the other hand, the sensing member 62 is displaced in the downward direction, when the caddy is inserted into the player with the

5 "SIDE TWO" of the spine facing upward. For reasons of symmetry, the remote end of the sensing member 62 is provided with a conical tip 70.

An electrical switch 72 comprising a top element 74, a bottom element 76 and a center element 78, is fixedly disposed on a second bracket 80 secured to the platform 52. A light bulb 82, illuminating the "SIDE ONE" indicia on the front instrument panel 20 of the player, is connected in series between the top element 74 and the terminal 84 of a power supply 86. A second light bulb 88, lighting the "SIDE TWO" indicia on the player front instrument panel 20, is interposed between the terminal 84 of the power supply 86 and the bottom element 76. The center element 78 is connected to the other terminal 90 of the power supply 86. The center element 78 has a bifurcated free end 92 which straddles over a portion 94 of the clasp 64. The upward deflection of the sensing member 62 establishes contact between the center element 78 and the top element 74, whereby the "SIDE ONE" light bulb 82 is illuminated. On the other hand, when the caddy 14 is inserted with the "SIDE TWO" of the spine 38 facing upward, the sensing member 62 is deflected downwards illuminating the "SIDE TWO" light bulb 88. Thus, it will be seen that the record side identification is provided as soon as the caddy is inserted into the player for loading a record therein (i.e., before arrival of the caddy at the fully inserted position in the player).

As indicated previously, the retaining member and the associated record (i.e., the record assembly) are retained within the player after an empty jacket 30 is withdrawn from the player. To provide the record side identification throughout the period of retention of the record assembly within the player, the sensing member 62 must be held in the deflected position subsequent to withdrawal of the empty jacket from the player. The sensing member holding mechanism 100 (Figs. 6 and 7) includes an actuating lever 102 pivotally secured to the platform 52. The actuating lever 102 has one end 104 disposed in the caddy insertion path, and has the other end 160 subject to engagement with a first end of a switch control rod 108. A pair of brackets 110 and 112 support the control rod 108 for translation along a path extending along the axis thereof. A second end 114 of the control rod 108 is disposed adjacent to a portion 116 of the clasp 64 for engagement therewith. The spine 38 pushes the end 104 of the actuating lever 102 away from the center of the turntable during cover arrival at the fully inserted position in the player. The actuating

lever 102 is held pivoted by the spine 38 throughout the retention of the record assembly within the player. When the actuating lever 102 is pivoted, the other end 106 thereof displaces the control rod 108 toward the input slot 12. The second end 114 of the control rod 108 then rides over or under the portion 116 of the clasp depending upon whether the sensing member 62 is deflected downward or upwards respectively, whereby the sensing member is locked in the position to which it was deflected during insertion of a cover into the player. When the record assembly is retrieved from the player, a coil spring 118 returns the control rod 108 and the actuating lever 102 to their respective home positions.

Shown in Fig. 8 is a schematic representation of a different embodiment 51 of the record side identifying apparatus pursuant to the instant invention. As shown therein, the apparatus includes a microswitch 53 mounted in the player. The microswitch 53 has a sensor element 55 disposed in the caddy insertion path. When the caddy 14 is inserted into the player with the record "SIDE ONE" facing upward, as shown in Fig. 8, a cutout 57 disposed in the spine portion 38 prevents actuation of the microswitch 53. A light bulb 59, connected to a normally-closed terminal 61 of the microswitch, is coupled to a source of power supply 63, thereby lighting an indicia, "SIDE ONE", disposed on the front instrument panel of the player. When the caddy is loaded into the player with the record "SIDE TWO" facing upward, a portion 65 of the spine 38 (disposed on the side thereof opposite from the cutout 57) depresses the sensor element 55, whereby the microswitch 53 is activated coupling a light bulb 67 to the power supply source 63 via a terminal 69 of the microswitch. The terminal 69 is normally open in the absence of actuation of the sensor element 55 of the microswitch. The light bulb 67, when turned on, illuminates an indicia, "SIDE TWO", on the front instrument panel 20 of the player. The power supply source 63 is switched off when the player is turned off. Thus, it will be seen that the light bulbs 59 and 67 illuminate respective markings, "SIDE ONE" and "SIDE TWO", on the front instrument panel 20 of the player.

Fig. 9 is a schematic representation of a further embodiment 71 of the present invention. A power supply source 73 is turned on when the player is switched on. A light bulb 75, connected to a normally-closed terminal 77 of a microswitch 79, is coupled to the power supply source 73, thereby lighting an indicia, "PLAYER EMPTY", on the front instrument panel of the player when the player is turned on. When a caddy 14 is inserted into the player, the spine 38 depresses the sensor element 83 of the microswitch 79, whereby the light bulb 75 (illuminating the

"PLAYER EMPTY" indicia) is turned off. A terminal 85 of the microswitch 79 is normally open, but is connected to the power supply source 73 upon actuation of the microswitch 79. A second microswitch 87 has a terminal 89 connected to the normally-opened terminal 85 of the first microswitch. The cutout 56 disposed in the spine portion 38 prevents actuation of a sensor element 91 of the second microswitch 87 when the caddy 14 is inserted into the player with the record "SIDE ONE" facing upward, whereby a light bulb 93, connected to a normally-closed terminal 95 of the second microswitch, is turned on. The light bulb 93, when turned on, illuminates an indicia, "SIDE ONE", on the front instrument panel of the player. When the caddy 14 is inserted into the player with the record "SIDE TWO" facing upward, both microswitches 79 and 87 are activated, whereby a light bulb 97 (connected to a normally-opened terminal 99 of the second microswitch) is turned on to the exclusion of the other light bulbs. When the light bulb 97 is turned on, it illuminates an indicia, "SIDE TWO", on the front instrument panel of the player. Thus, it will be seen that the "PLAYER EMPTY" light is turned on in the absence of a record in the player, the "SIDE ONE" light is switched on when the caddy is inserted into the player with the record "SIDE ONE" facing upward, and the "SIDE TWO" light is illuminated when the caddy is inserted into the player with the record "SIDE TWO" facing upward.

Fig. 10 diagrammatically illustrates an additional embodiment 101 of the record side identifying apparatus of the instant invention. The apparatus includes an actuating lever 103 pivotally secured to the housing of the player. A sensor element 105 is disposed at one end of the actuating lever 103 extending into the caddy insertion path. The other end of the actuating lever 103 is connected to a flexible shutter member 107 disposed in the vicinity of the front instrument panel 20 of the player. The flexible shutter 107 has a window 109 which is subject to selective alignment with indicia "PLAYER EMPTY", "SIDE ONE" and "SIDE TWO" disposed on the front instrument panel of the player. In the absence of a record in the player, a coil spring 111 urges the actuating lever 103 to occupy a first position, thereby disposing the window 109 in alignment with the indicia, "PLAYER EMPTY". When the caddy is inserted into the player with the record "SIDE ONE" facing upward, the spine portion 38 (with the cutout 57 in alignment with the sensor element 105) disposes the actuating lever 103 in a second position as shown in Fig. 10 whereby the window 109 is aligned with the indicia, "SIDE ONE". Insertion of the caddy with the record "SIDE TWO" on top, disposes the actuating lever 103 such that the window

109 is aligned with the indicia, "SIDE TWO". Light bulbs 113, 115 and 117 illuminate respective indicia through the window 109.

## 70 CLAIMS

1. Record side identification apparatus in a player for a disc record recorded on both sides and removably subject to occupancy of a protective cover comprising a jacket and a record retaining spine removably located within said jacket; said record being enclosed in said cover such that one recorded side of said record is associated with a given side of said spine and the opposite recorded side is associated with the other side of said spine; said player having an input slot through which an occupied cover is inserted to load an enclosed record therein; said player additionally including a record extracting mechanism for removing said retaining spine from said jacket during jacket withdrawal subsequent to an occupied cover arrival at a fully inserted position in said player, thereby retaining said spine and said associated record in said player; said apparatus comprising first means subject to conditioning in response to control means on said record retaining spine in a first state in response to insertion of an occupied cover with said given side of said spine facing upward, and subject to conditioning in a second state in response to cover insertion with said given side facing downward; and second means responsive to the state of said first means for providing an indication of the record side subject to playback.
2. Apparatus in accordance with Claim 1 wherein said first means is subject to further conditioning in a third state in response to absence of said record retaining spine from said player; wherein said second means, responsive to said third state of said first means, serves additionally to provide an indication of lack of a record in said player.
3. Apparatus in accordance with Claim 1 for a protective cover wherein the record retaining spine has a cutout located asymmetrically about a line bisecting said cover, and extending parallel to the direction of insertion of said cover into said player; wherein said first means includes means for sensing said cutout in said record retaining spine.
4. Apparatus in accordance with Claim 1 for a protective cover wherein the record retaining spine has a discontinuity asymmetrically disposed about a line bisecting said cover, and extending parallel to the direction of said cover insertion into said player; wherein said first means includes means for sensing presence of said discontinuity in said record retaining spine.
5. Apparatus in accordance with Claim 4 for a two-sided, disc record; wherein said sensing means includes a microswitch having three terminals; said second means including

"PLAYER EMPTY" indicia) is turned off. A terminal 85 of the microswitch 79 is normally open, but is connected to the power supply source 73 upon actuation of the microswitch

79. A second microswitch 87 has a terminal 89 connected to the normally-opened terminal 85 of the first microswitch. The cutout 56 disposed in the spine portion 38 prevents actuation of a sensor element 91 of the second microswitch 87 when the caddy 14 is inserted into the player with the record "SIDE ONE" facing upward, whereby a light bulb 93, connected to a normally-closed terminal 95 of the second microswitch, is turned on. The light bulb 93, when turned on, illuminates an indicia, "SIDE ONE", on the front instrument panel of the player. When the caddy 14 is inserted into the player with the record "SIDE TWO" facing upward, both microswitches 79 and 87 are activated, whereby a light bulb 97 (connected to a normally-opened terminal 99 of the second microswitch) is turned on to the exclusion of the other light bulbs. When the light bulb 97 is turned on, it illuminates an indicia, "SIDE TWO", on the front instrument panel of the player. Thus, it will be seen that the "PLAYER EMPTY" light is turned on in the absence of a record in the player, the "SIDE ONE" light is switched on when the caddy is inserted into the player with the record "SIDE ONE" facing upward, and the "SIDE TWO" light is illuminated when the caddy is inserted into the player with the record "SIDE TWO" facing upward.

- Fig. 10 diagrammatically illustrates an additional embodiment 101 of the record side identifying apparatus of the instant invention. The apparatus includes an actuating lever 103 pivotally secured to the housing of the player. A sensor element 105 is disposed at one end of the actuating lever 103 extending into the caddy insertion path. The other end of the actuating lever 103 is connected to a flexible shutter member 107 disposed in the vicinity of the front instrument panel 20 of the player. The flexible shutter 107 has a window 109 which is subject to selective alignment with indicia "PLAYER EMPTY", "SIDE ONE" and "SIDE TWO" disposed on the front instrument panel of the player. In the absence of a record in the player, a coil spring 111 urges the actuating lever 103 to occupy a first position, thereby disposing the window 109 in alignment with the indicia, "PLAYER EMPTY". When the caddy is inserted into the player with the record "SIDE ONE" facing upward, the spine portion 38 (with the cutout 57 in alignment with the sensor element 105) disposes the actuating lever 103 in a second position as shown in Fig. 10 whereby the window 109 is aligned with the indicia, "SIDE ONE". Insertion of the caddy with the record "SIDE TWO" on top, disposes the actuating lever 103 such that the window

109 is aligned with the indicia, "SIDE TWO". Light bulbs 113, 115 and 117 illuminate respective indicia through the window 109.

## 70 CLAIMS

1. Record side identification apparatus in a player for a disc record recorded on both sides and removably subject to occupancy of a protective cover comprising a jacket and a record retaining spine removably located within said jacket; said record being enclosed in said cover such that one recorded side of said record is associated with a given side of said spine and the opposite recorded side is associated with the other side of said spine; said player having an input slot through which an occupied cover is inserted to load an enclosed record therein; said player additionally including a record extracting mechanism for removing said retaining spine from said jacket during jacket withdrawal subsequent to an occupied cover arrival at a fully inserted position in said player, thereby retaining said spine and said associated record in said player; said apparatus comprising first means subject to conditioning in response to control means on said record retaining spine in a first state in response to insertion of an occupied cover with said given side of said spine facing upward, and subject to conditioning in a second state in response to cover insertion with said given side facing downward; and second means responsive to the state of said first means for providing an indication of the record side subject to playback.
2. Apparatus in accordance with Claim 1 wherein said first means is subject to further conditioning in a third state in response to absence of said record retaining spine from said player; wherein said second means, responsive to said third state of said first means, serves additionally to provide an indication of lack of a record in said player.
3. Apparatus in accordance with Claim 1 for a protective cover wherein the record retaining spine has a cutout located asymmetrically about a line bisecting said cover, and extending parallel to the direction of insertion of said cover into said player; wherein said first means includes means for sensing said cutout in said record retaining spine.
4. Apparatus in accordance with Claim 1 for a protective cover wherein the record retaining spine has a discontinuity asymmetrically disposed about a line bisecting said cover, and extending parallel to the direction of said cover insertion into said player; wherein said first means includes means for sensing presence of said discontinuity in said record retaining spine.
5. Apparatus in accordance with Claim 4 for a two-sided, disc record; wherein said sensing means includes a microswitch having three terminals; said second means including



a pair of lights; each one of said lights representing the respective one of said record sides; wherein the first one of said terminals is connected to one of said lights; wherein the second one of said terminals is connected to the other of said lights; wherein the remaining terminal of said microswitch is connected to a source of energy supply.

6. Apparatus in accordance with Claim 5 wherein said sensing means further includes a second microswitch also having three terminals; said second means additionally including a third light representing absence of a record from said player; said third light being coupled to the first one of said terminals of said second microswitch; the second terminal of said second microswitch being coupled to said source of energy supply; the remaining terminal of said second microswitch being coupled to said remaining terminal of said first-mentioned microswitch.

7. Apparatus in accordance with Claim 4 for a two-sided disc record; wherein said sensing means includes a member subject to displacement at a first location and a second location respectively in response to the upward and downward disposition of said record retaining spine in said player.

8. Apparatus as defined in Claim 7 for said player which further includes indicia identifying the respective one of said record sides; said second means including a shutter connected to said member for exposing a selected one of said record side identifying indicia.

9. Apparatus according to Claim 1 wherein said first means comprises:

a sensing member mounted in said player in the vicinity of said input slot such that it is subject to deflection in a first direction in response to engagement with an occupied cover during insertion thereof in said player with said given side of said spine facing upward, and subject to deflection in a second direction, opposite to the first direction, in response to an occupied cover insertion with said given side of said spine facing downward;

said second means is responsive to the location of said sensing member for providing an indication of the record side subject to play; and including

means subject to engagement with said spine upon said occupied cover arrival at said fully inserted position in said player for holding said sensing member in the position to which it was deflected during said occupied cover insertion, throughout the period of retention of said spine in said player.

10. Apparatus as defined in Claim 9, wherein said player further includes means, subject to selective alignment with said input slot, for guiding said cover during insertion thereof into said player; said sensing member being movably mounted to said guide means adjacent to the end of said guide means

contiguous to said input slot such that said sensing member is disposed in the path of said cover travel in the absence of said deflection of said sensing member.

11. Apparatus as defined in Claim 9 wherein said indication providing means includes a common terminal disposed on said sensing member and a pair of spaced terminals; said spaced terminals being located relative to said sensing member such that said common terminal is disconnected from said spaced terminals in the absence of said deflection of said sensing member, and such that said common terminal is connected to one or the other of said spaced terminals depending upon the direction of said deflection of said sensing member.

12. Apparatus as defined in Claim 11 wherein said holding means includes a lever movably mounted in said player so as to be subject to displacement in response to engagement with said spine upon said occupied cover arrival at said fully inserted position in said player; said displacement of said lever locking said sensing member into the position to which it was deflected during said occupied cover insertion throughout the period of said spine/lever engagement.

13. A record side identification apparatus for use with a record player having an input slot through which a protective cover comprising a jacket and record retaining spine removably located therein can be inserted to load a record in the player, said player also including a record extracting mechanism for removing the spine and record from said jacket during withdrawal of the jacket subsequent to arrival of a cover containing a record at a fully inserted position in the player, thereby retaining the spine and record in the player, and said player further including sensing means disposable in first and second conditions and indicator means responsive to the condition of said sensing means to provide a visual indication of the record side subject to playback, said record side identification apparatus comprising: a protective cover which comprises a jacket and a record retaining spine as aforesaid and in which is disposed a record recorded on both sides with one recorded side associated with a given side of the spine and the opposite recorded side associated with the other side of the spine; and control means disposed on said record retaining spine for controlling the condition of said sensing means and effective to determine, a first condition of said sensing means in response to insertion of an occupied cover into said player said given side of spine facing upwards, and a second condition of said sensing means in response to insertion of an occupied cover into said player with said opposite side facing upwards.

14. Disc record side identification apparatus substantially as described with reference

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to Figs. 2, 3, 5 and 6, or to Fig. 8 or Fig. 9  
or Fig. 10.

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