

IMPROVEMENT TO JOG AND SHUTTLE CONTROLS FOR ELECTRONIC OR ELECTRICAL DEVICES

5 BACKGROUND OF THE INVENTION

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10 The present invention relates to an improvement to the "jog and shuttle" controls used on electronic or electrical devices, notably video devices such as video recorders.

Known jog and shuttle controls for video recorders, mounted either directly on the control panel of the recorder or on the remote control unit, comprise essentially two concentric means of control. They include, in particular, an annular ring that enables the forward and reverse reading
15 speeds to be regulated by rotating the ring, and a second means in the form of a central knob generally having a small cavity in the shape of a finger tip which provides for various functions, notably image-by-image display, stopping on an image, and changing channels. On video recorders or their remote controllers currently on the market, these controls are mounted
20 protruding from the face-plate of the control panel; they are therefore unattractive and cumbersome.

SUMMARY OF THE INVENTION

25 The goal of the present invention is to propose a new type of jog and search control that overcomes the disadvantages mentioned above, notably in that it does not protrude beyond the face-plate of the control panel.

The object of the present invention is therefore a jog and shuttle control for electronic or electrical devices of the type including at least one first
30 means of control fitted inside a cavity in the face-plate of the control panel such that it can move inside this cavity around an axis, wherein a second means of control is included in the form of a knob mounted coaxially with said first means of control within the cavity such that the external face of the knob

is aligned with said face-plate, said first means being concentrical to the knob.

Another characteristic of the invention is that the shape of the cavity is substantially spherical or cylindrical.

5 According to a preferred embodiment, said first means is a finger fixed to a ring mounted coaxially with the knob.

Another characteristic is that the knob is offset laterally from the center of the cavity, the external surface of the knob being tangential to one of the edges of the cavity and the finger being mounted such that it moves around
10 the arc of circle on the opposite side to the point of tangency.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood and other advantages and
15 characteristics will become clear on reading the following description of a preferred embodiment making reference to the appended figures, of which:

- figure 1 shows a front view of part of the face-plate of a video recorder fitted with a jog and search control according to the present invention;
- 20 - figure 2 is a view of the section AA of figure 1;
- figure 3 is perspective view of the finger used in the jog and shuttle control of figure 1.

In figures 1 and 2, reference 1 designates the face-plate of the control panel of a video recorder. However, it will be obvious to professionals of the art that the jog and shuttle control according to the invention can also be
25 mounted on a remote-control unit of video recorder in a similar way to the embodiment shown here. A cavity 2 has been made in this face-plate 1. As shown more clearly in figure 2, the cavity 2 is of spherical form and of a diameter sufficiently large to receive the whole of the jog and shuttle control and enable its manipulation. As shown in figures 1 and 2, the jog and shuttle
30 control is constituted essentially by a knob 3 mounted on a spindle 4 coaxial with the axis a. The knob 3 can be fixed, having a purely decorative function. The knob 3 can be mobile, rotating about the axis or moving along the direction of this axis. In this case, this knob 3 enables image-by-image

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viewing with the possibility of stopping on an image or changing channels. The knob 3 provides in fact the same functions as the central knob of the conventional type of jog and shuttle control. It is mounted within the cavity 2 such that its external face 3' is aligned with the face-plate 1 of the control panel. As shown in figure 2, the knob is not cylindrical: the shape of its rear face is substantially spherical, so as to fit snugly in the cavity 2. Moreover, according to the present invention and as shown in figures 1 to 3, the first means of control that enable the forward and reverse reading speeds to be varied is constituted by a finger 5 fixed to an annular part 6 mounted, as shown in figure 2, coaxially with the spindle 4 on the axis a. The assembly comprising the annular part 6 and the finger 5 is also mounted within the cavity 2 such that it can turn in this cavity along the arc of a circle 7. In addition, the shape of the finger 5 is such that its upper surface 5' is elliptical and aligned with the face-plate of the control panel. Consequently, owing to its design, none of the parts comprising the jog and shuttle control protrudes from the face-plate of the control panel.

It will be obvious to professionals of the art that the various parts of the jog and shuttle control according to the present invention can be modified, notably the shapes of the cavity which can also be cylindrical, the knob and the finger, while remaining within the scope of the invention.



WHAT IS CLAIMED IS

1. Jog and shuttle control for electronic or electrical devices of the type including at least one first means of control fitted inside a cavity in the face-plate of the control panel such that it can move inside this cavity around an axis, wherein a second means of control is included in the form of a knob mounted coaxially with said first means of control within the cavity such that the external face of the knob is aligned with said face-plate.
2. Jog and shuttle control according to claim 1, wherein the shape of said cavity is substantially spherical or cylindrical.
3. Jog and shuttle control according to claim 1, wherein said first means of control is constituted by a finger fixed to a ring mounted coaxially with said knob.
4. Jog and shuttle control according to claim 1, wherein said knob is fixed on said axis and immobile, or mounted so that it can rotate about this axis or be displaced along it.
5. Jog and shuttle control according to claim 1, wherein the position of said knob is offset laterally from the center of the cavity.
6. Jog and shuttle control according to claim 1, wherein the edge of said knob is tangential to one of the edges of said cavity.
7. Jog and shuttle control according to claim 1, wherein said first means of control are mounted such that it moves along the arc of a circle in the cavity.

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