

accommodate the display support member 140 (not shown). This recessed area 115 enables a top surface 116 of back display panel 114 to be substantially coplanar with a top surface 141 of the display support member 140 when the electronic device 100 is in the CLOSED position (see FIG. 1).

[0035] As shown in FIG. 1, second hinge assembly 150 may pivotally couple the second end 144 of the display support member 140 to the display housing 110. In one embodiment of the invention, the second hinge assembly 150 may be generally positioned adjacent a longitudinal center 151 of the back display panel 114 of the display housing 110, meaning that the second hinge assembly 150 may rotate about a substantially horizontal axis of rotation that is approximately equidistant from the back edge 117 and the front edge 118 of the display housing 110. The axis of rotation may be in the plane of the back display panel 114 or somewhat above or below that plane.

[0036] The portion of the display housing 110 between the longitudinal center 151 established by the second hinge assembly 150 and the first hinge assembly 130 is referred to as the "bottom portion" 119 of the display housing 110. The second hinge assembly 150 enables the display housing 110 to be vertically pivoted around the horizontal axis of rotation established by the second hinge assembly 150. The second hinge assembly 150 may be a friction hinge, a collection of friction hinges, or one or more hinges without a brake mechanism.

[0037] Returning back to FIG. 4, the back display panel 114 may comprise a recessed portion 152 adapted to receive the second hinge assembly 150. The recessed portion 152 may be in the recessed area 115.

[0038] As further shown in FIG. 4, the display housing 110 may comprise one or more first latch members 113, such as latch hooks, coupled to the back display panel 114 adjacent the bottom edge 117. The first latch members 113 may be positioned within the recessed area 115.

[0039] The arrangement of the display support member 140 and the hinge assemblies 130, 150 may permit the display housing 110 to be placed in various configurations with respect to the body 120. FIG. 5A is a schematic cross-section that shows the display housing 110 placed in the CLOSED position. FIG. 5B is a schematic cross-section that shows the display housing 110 placed in the NOTEBOOK position. FIG. 5C is a schematic cross-section that shows the display housing 110 placed in the NOTEBOOK position. The features and components of the electronic device 100 will be referenced based on a collective review of FIGS. 5A-5C.

[0040] As shown in FIG. 5A, the display support member 140 may comprise one or more second latch members 220 coupled to the display support member 140 adjacent the first end 142. Each first latch member 113 may engage one of the second latch members 220 to couple the display housing 110 to the support member 140 and prevent rotation of the second hinge assembly 150. This provides a first configuration of the device 100 in which the display housing 110 may be moved from the CLOSED position (FIG. 5A) to the NOTEBOOK position (FIG. 5B) by rotating the display support member 140 and the coupled display housing 110 about the first hinge assembly 130.

[0041] A first storage latch member 160 may be provided on the display housing 110 adjacent the top edge 118. A second storage latch member 162 may be provided on the body 120 adjacent the top edge 128. The first storage latch member 160 may be coupled to the second storage latch member 162 prevent rotation of the first hinge assembly 130 and maintain the device 100 in the CLOSED position as shown in FIG. 5A. The first storage latch member 160 may be uncoupled from the second storage latch member 162 to permit rotation of the first hinge assembly 130 and to allow the device 100 to be opened to the NOTEBOOK position as shown in FIG. 5B. In one embodiment of the invention, the first storage latch member 160 may be rotatable as shown in FIG. 5B.

[0042] The first latch member 113 may be uncoupled from the second latch member 220 to permit rotation of the first hinge assembly 130 and to allow the device 100 to be placed in the TABLET position as shown in FIG. 5C. In one embodiment of the invention, the second latch member 220 may comprise a slidable button with a resilient member 154, such as a spring, to urge the second latch member toward a position that engages the first latch member 113. The slidable button may be moved in opposition to the resilient member 154 to uncouple the first latch member 113.

[0043] The body 120 may comprise one or more receiving portions 191 included in the front panel section 122 adjacent the top edge 128. In one embodiment of the invention, one or more channels 190, 192 are formed on the front panel section 122 (see FIG. 1). Each channel 190, 192 includes a recessed area for the receiving portions 191, 193 where one of the receiving portions is further shown in FIGS. 5A-D. As shown in FIG. 5C, the first latch member 113 may engage the receiving portion 191 when the device 100 is opened to the TABLET position.

[0044] As shown in FIG. 5D, the display housing 110 may require a substantial rotation away from the TABLET position before the first latch member 113 may move sufficiently away from the receiving portion 191 to uncouple the first latch member 113 and allow the display housing to move freely away from the body. In this way, the first latch member 113 may be reliably coupled to the receiving portion 191 without requiring the first latch member or the receiving portion to be independently movable.

[0045] In one embodiment of the invention, the first storage latch member 160 may be rotatable to engage a third storage latch member (not shown) coupled to the body adjacent the bottom edge 126, as shown in FIG. 5C. Coupling the first storage latch member to the third storage latch member may further secure the display housing 110 when the device 100 is in the TABLET position. The rotation of the first storage latch member 160 may provide an unobstructed surface on the front display panel 112 in the TABLET position.

[0046] In one embodiment of the invention, two or more receiving portions, for example three receiving portions 191, 191', 191" may be provided for each first latch member 113'. The additional receiving portions 191', 191" may be placed a successively greater distances from the top edge 128 of the body 120. This may permit the display housing 110 to be secured at various angles relative to the body 120 when the device is in the TABLET position as shown in FIGS. 6A and 6B. This may allow the display housing 110 to be coupled