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(54) INTELLIGENT ELECTRICAL DEVICE COMPRISING MICROCHIP

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362/184; 362/205 Field of Search 315/200 A, 241 R, (58)

315/241 P, 291, 292, 293, 294, 295, 362, DIG. 4, 307, 185 S, 360; 36/137, 136; 362/184, 205, 276

(56)**References Cited**

U.S. PATENT DOCUMENTS

2,630,517		3/1953	Hiscar 219/32
2,784,290		3/1957	Ashton 219/32
2,810,797		10/1957	Gulnick 200/33
3,259,713		7/1966	Herridge, Jr. et al 200/83
3,535,282		10/1970	Mallory 200/60
3,646,302		2/1972	Lehmann 200/168 E
4,237,526		12/1980	Wood
4,282,681	*	8/1981	McCaslin 46/228
4,293,894	*	10/1981	Blank 362/100
4,409,645		10/1983	Sloan 362/200
4,414,611		11/1983	Seltzer et al 362/183
4,442,478		4/1984	Stansbury 362/191
4,483,605		11/1984	Krumrein et al 354/417
4,623,957	*	11/1986	Moore et al 362/200
4,875,147		10/1989	Auer
4,963,793	*	10/1990	DePauli
5,005,004		4/1991	Udofot 340/600

5,027,037	*	6/1991	Wei 315/200 A
5,114,376	*	5/1992	Copley et al 446/369
5,138,538	*	8/1992	Sperling
5,187,655	*	2/1993	Post et al 315/292
5,206,097		4/1993	Burns et al 429/90
5,349,540		9/1994	Birkle et al
5,604,999	*	2/1997	Barker 36/137
5,611,720	*	3/1997	Vandermaas 446/47

FOREIGN PATENT DOCUMENTS

8062681 8/1994 (JP).

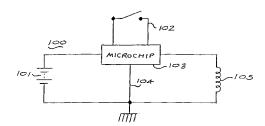
Primary Examiner—Don Wong Assistant Examiner—Wilson Lee

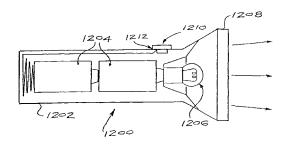
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ABSTRACT (57)

The present invention, according to a preferred embodiment, is directed to portable electronic devices which operate on exhaustible power sources, for example, batteries. The electronic devices of the present invention comprise at least one signal switch and a microchip in communication with the switch wherein the switch is only capable of transmitting a signal to the microchip that the switch has been activated or deactivated. The microchip is in communication with the exhaustible power source of the electronic device and controls (i) the power on/off function of the device, (ii) at least one other function of the device in response to activation and deactivation signals from the switch, and (iii) an automatic shut off function in response to the receipt of an activation signal from the switch. The present invention, according to other embodiments, is also directed to (i) intelligent batteries with microchips embedded therein, and (ii) portable microchip devices for insertion into electronic devices to provide additional features and functions to the nonintelligent electronic devices.

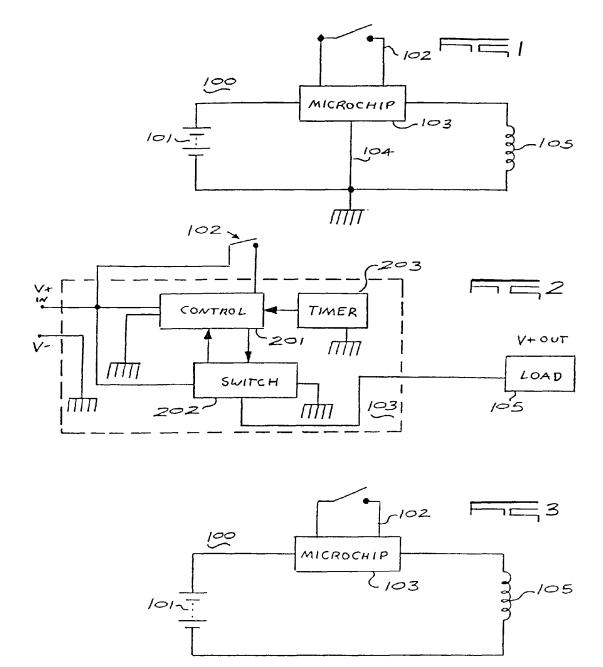
15 Claims, 6 Drawing Sheets



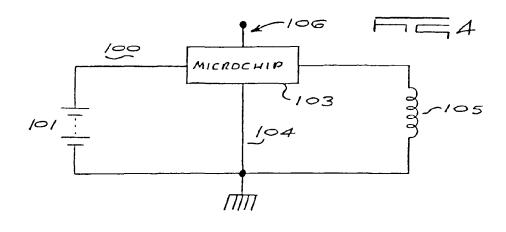


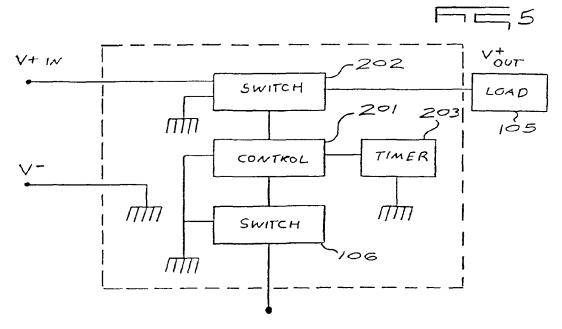


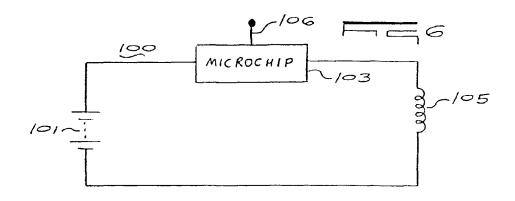
^{*} cited by examiner

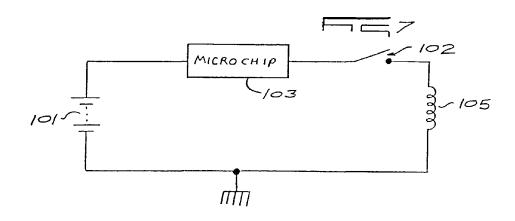


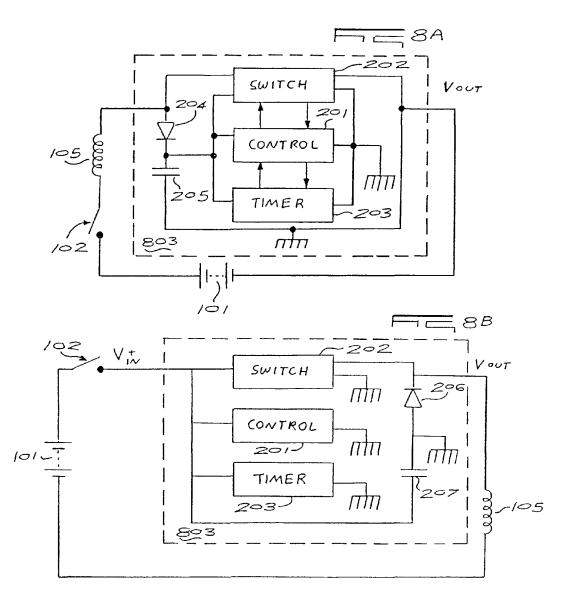




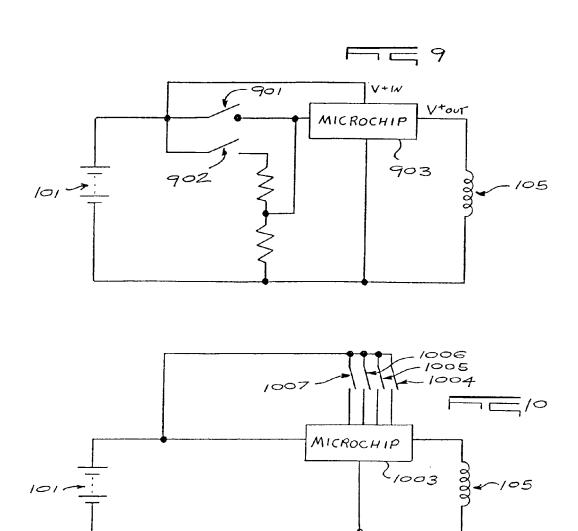


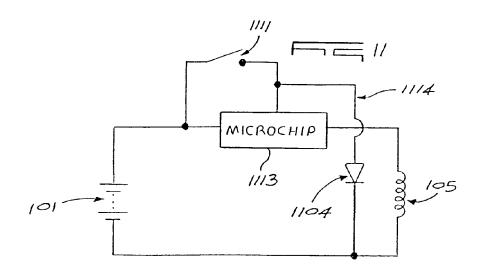














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