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Bruwer

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(54) **METHOD OF COMMUNICATION USING AN ENCODER MICROCHIP AND A DECODER MICROCHIP**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 64 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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(51) **Int. Cl.**
H04Q 1/00 (2006.01)

(52) **U.S. Cl.** **370/342**; 340/825.1; 340/825.56; 342/42

(58) **Field of Classification Search** 370/342; 340/825.1, 825.56, 825.69, 825.72; 342/42
See application file for complete search history.

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(57) **ABSTRACT**

Encoder and decoder microchips suitable for use in remote control devices, are disclosed. The encoder microchip comprises means for performing an encoding function on an identification number embedded in the said microchip and a combination of a unit number and a stepping counter value, so as to generate a transmission value which is only decodable by a related decoding function having access to the same identification number. The decoder microchip comprises means for decoding the transmission value into a decoded unit number and a decoded counter value and means for comparing the decoded counter value with a decoder counter value range. The encoder and decoder microchips are provided with means for changing, e.g. in a preferred mode incrementing, the counter values by a number greater than one after a period of time, subsequent to the encoder microchip being activated or the decoder microchip receiving a transmission value. The encoder and decoder microchips are also provided with means for synchronizing the decoder microchip with a particular encoder microchip which has generated a synchronization command.

17 Claims, 7 Drawing Sheets

