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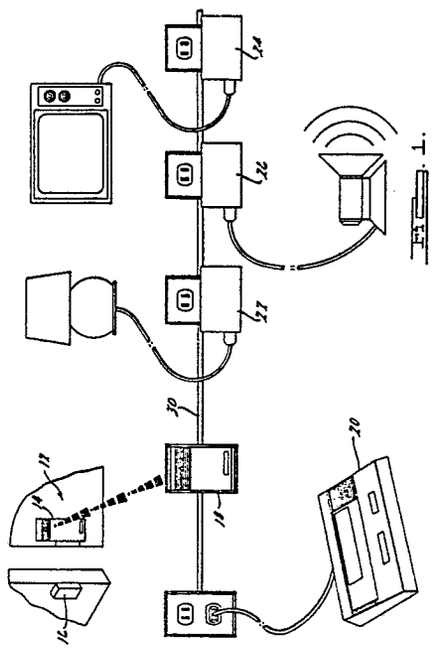
(54) Security control system.

(57) A security and control system for use in a home or building, utilizes a coded audio link between entry detectors/transmitters (12) and relay modules (18), and a digital pulse coded power line communication (PLC) link between the relay modules (18) and a system controller (20) as well as between the system controller (20) and various remotely located slave units (22, 24, 26) which control the energization of lamps, appliance, and alarms. The controller (20) is also adapted to receive coded audio signals directly from an entry detector/transmitter (12). The relay modules (22, 24, 26) and controller (20) include constan false alarm rate receiver for isolating the coded audio signal from background noise, and unique exclusion circuitry for decoding the isolated signal. The PLC messages are generated by impressing a pulse code modulated high frequency carrier signal onto the AC line (30) at selected points in the AC waveform. The location of each carrier frequency pulse relative to the AC line cycle determines the digital value of the pulse. Both before and during a PLC message transmission, the controller (20) and relay modules (22, 24, 26) are adapted to check the status of the AC power line for the presence of either intelligence or excessive noise levels. When operated as a remote control system, unit codes in the PLC messages transmitted by the system controller (20) serve to selectively identify particular slave modules (22, 24, 26). In the security mode, the system has three major states: INSTANT-ARM, ARM-DELAY, and DISARM.



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EUROPEAN SEARCH REPORT

Application Number

EP 86 30 3483

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-3 925 763 (WADHWANI et al.) * Figures 1,3; column 1, line 55 - column 2, line 26; column 3, lines 59-63 *	1,16,22,31	G 08 B 25/00
A		20,21,28,29	
Y	CA-A-1 116 284 (SAGI) * Page 4, lines 23-31 *	1,16,22,31	
A	EP-A-0 095 337 (M. ISE) * Whole document *	4-11,32-36	
A	US-A-3 760 397 (TAGGART) * Abstract *	3,17,19	
A	US-A-4 367 458 (HACKETT) * Column 7, lines 25-38 *	11-14,23-26,30	

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

G 08 B 1/08
G 08 B 13/18
G 08 B 19/00
G 08 B 25/00
H 04 B 3/54

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	10-06-1988	CRECHET P.G.M.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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E : earlier patent document, but published on, or after the filing date
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