US005086385A

United States Patent [19]

Launey et al.

[11] Patent Number: 5,086,385

[45] Date of Patent: Feb. 4, 1992

[54] EXPANDABLE HOME AUTOMATION SYSTEM

[75] Inventors: **Reuel O. Launey**, Arlington, Va.; **Peter A. Grendler**, Silver Spring, Md.; **Donald L. Packham**, Fort Lauderdale, Fla.; **James M. Battaglia**, Kettering; **Howard E. Levine**, Adelphi, both of Md.

[73] Assignee: **Custom Command Systems**, College Park, Md.

[21] Appl. No.: **304,300**

[22] Filed: **Jan. 31, 1989**

[51] **Int. Cl.**[5] **G05B 15/02**

[52] **U.S. Cl.** **364/188**; 364/189; 340/825.37; 379/102

[58] **Field of Search** ..... 364/200, 900, 188, 189, 364/513.5; 379/102, 104, 79; 340/825.37, 825.69; 219/10.55 B, 506; 319/46, 47, 97, 98

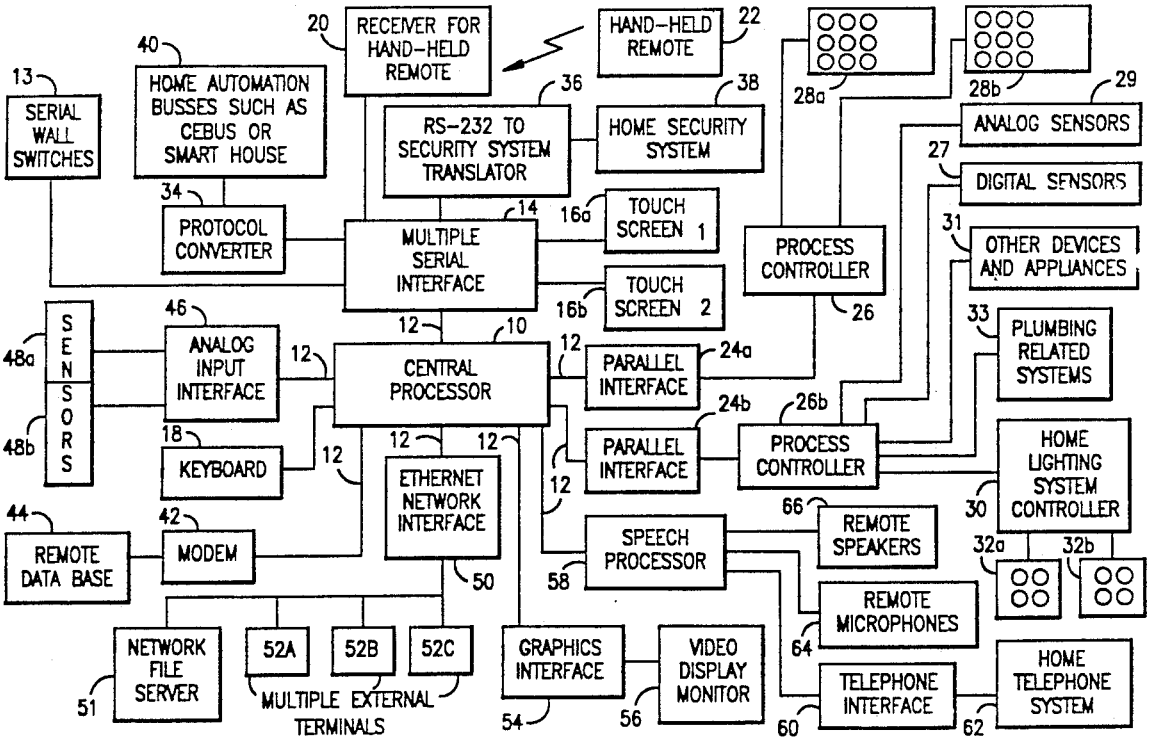
[56] **References Cited**

U.S. PATENT DOCUMENTS

4,503,288 3/1985 Kessler ..... 179/2 DP
4,513,189 4/1989 Ueda et al. ..... 219/10.55 B
4,520,576 6/1985 Vander Molen 34/45
4,521,645 6/1985 Carroll 379/98
4,663,775 5/1987 Olek 379/24
4,665,544 5/1987 Honda et al. 379/104
4,728,949 3/1988 Platte et al. 340/825.37

Primary Examiner—Jerry Smith
Assistant Examiner—Paul Gordon
Attorney, Agent, or Firm—Dickstein, Shapiro & Morin

[57] **ABSTRACT**

A system for and a method of providing an expandable home automation controller is disclosed which supports multiple numbers and multiple different types of data communications with both appliances and subsystems within the home as well as systems external to the home. The system is based upon a central processor, such as a microprocessor-based computer, and is connected by means of a data bus to control the various products and subsystems within a home or commercial building, such as lighting systems, security systems, various sensors, multiple external terminals, as well as to allow for the input of commands by a variety of means such as touchscreens, voice recognition systems, telephones, custom switches or any device capable of providing an input to a computer system. The system functions can be readily controlled by the user utilizing a high resolution graphics display and associated touch-screen interface.

20 Claims, 45 Drawing Sheets