



US005774859A

United States Patent [19]**Houser et al.**[11] **Patent Number:** **5,774,859**[45] **Date of Patent:** **Jun. 30, 1998**[54] **INFORMATION SYSTEM HAVING A
SPEECH INTERFACE**[75] Inventors: **Peter B. Houser**, Poway, Calif.; **Mark
E. Schutte**, Sugar Hill, Ga.; **Gloria J.
Majid**, San Diego, Calif.[73] Assignee: **Scientific-Atlanta, Inc.**, Norcross, Ga.[21] Appl. No.: **367,997**[22] Filed: **Jan. 3, 1995**[51] **Int. Cl.**⁶ **H04N 7/00; G10L 9/00**[52] **U.S. Cl.** **704/275**[58] **Field of Search** 395/2.79, 2.84;
704/275, 270[56] **References Cited****U.S. PATENT DOCUMENTS**

4,516,207	5/1985	Moriyama et al.	364/424
4,641,292	2/1987	Tunnell et al.	367/198
4,677,569	6/1987	Nakano et al.	364/513.5
4,706,121	11/1987	Young	358/142
4,776,016	10/1988	Hansen	381/42
4,977,455	12/1990	Young	358/142
4,989,253	1/1991	Liang et al.	381/110
5,086,385	2/1992	Launey et al.	364/188
5,151,789	9/1992	Young	358/194.1
5,157,760	10/1992	Akagiri	395/2
5,199,080	3/1993	Kimura et al.	381/110
5,230,023	7/1993	Nakano	381/110
5,267,323	11/1993	Kimura	381/110
5,303,148	4/1994	Mattson et al.	364/413.01
5,335,276	8/1994	Thompson et al.	380/21
5,335,313	8/1994	Douglas	395/2.84
5,353,121	10/1994	Young et al.	348/563
5,479,266	12/1995	Young et al.	358/335
5,479,268	12/1995	Young et al.	358/335
5,557,319	9/1996	Gurusami et al.	348/11

FOREIGN PATENT DOCUMENTS

4351094 5/1991 Japan G10L 3/00

OTHER PUBLICATIONS

Lefkowitz, "Voice-Recognition Home TV Coming This Year; Service Merges Computer, Phone, and Cable Technologies (BBN Hark Systems Corp, Time Warner Cable, Full Service Network)," Computer Shopper, v. 15, n2, p.68(1), Feb. 1995.

"Voice Operated Controls and Switches Are Developed," Veterans Administration Journal Announcement GRA18422, Abstract, Jul., 1984.

Sugaya et al., "Voice Remote Controlled TV Set," COMP-CON 79 Proceedings using microprocessors extending our reach, 1979.

Dawson, "Time Warner Pursues Voice as New Remote", Multichannel News, Jan. 9, 1995, pp. 31 and 34.

Primary Examiner—David R. Hudspeth*Assistant Examiner*—Susan Wieland*Attorney, Agent, or Firm*—Kenneth M. Massaroni; Kelly A. Gardner[57] **ABSTRACT**

A system for controlling a device such as a television and for controlling access to broadcast information such as video, audio, and/or text information is disclosed. The system includes a first receiver for receiving utterances of a speaker, a second receiver for receiving vocabulary data defining a vocabulary of utterances, and a processor for executing a speech recognition algorithm using the received vocabulary data to recognize the utterances of the speaker and for controlling the device and the access to the broadcast information in accordance with the recognized utterances of the speaker.

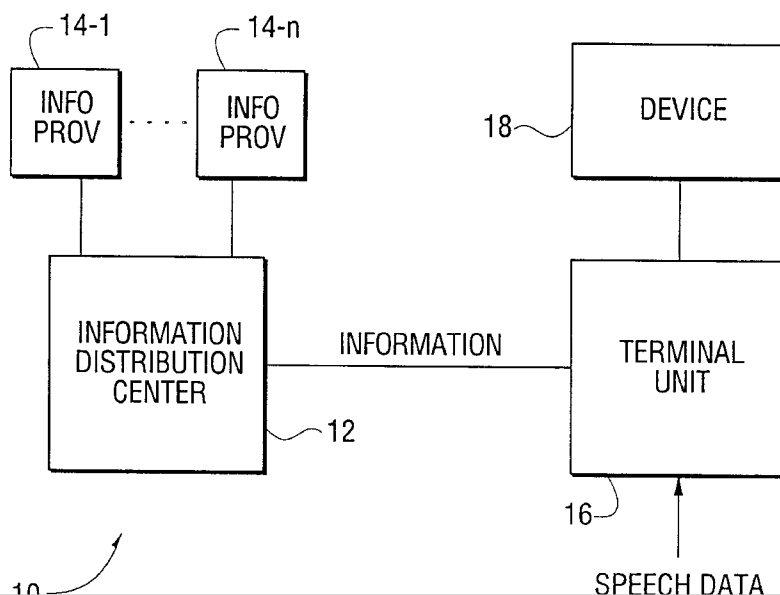
10 Claims, 28 Drawing Sheets

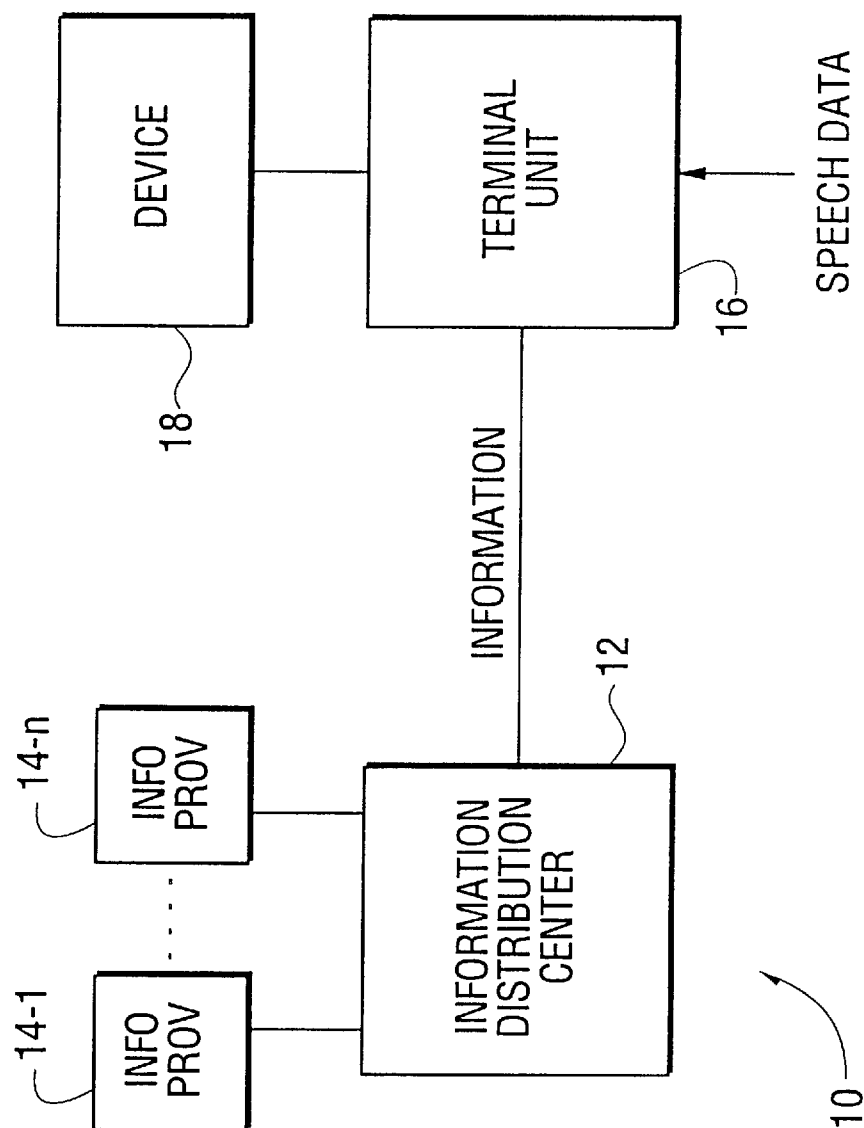
FIG. 1

FIG. 2A

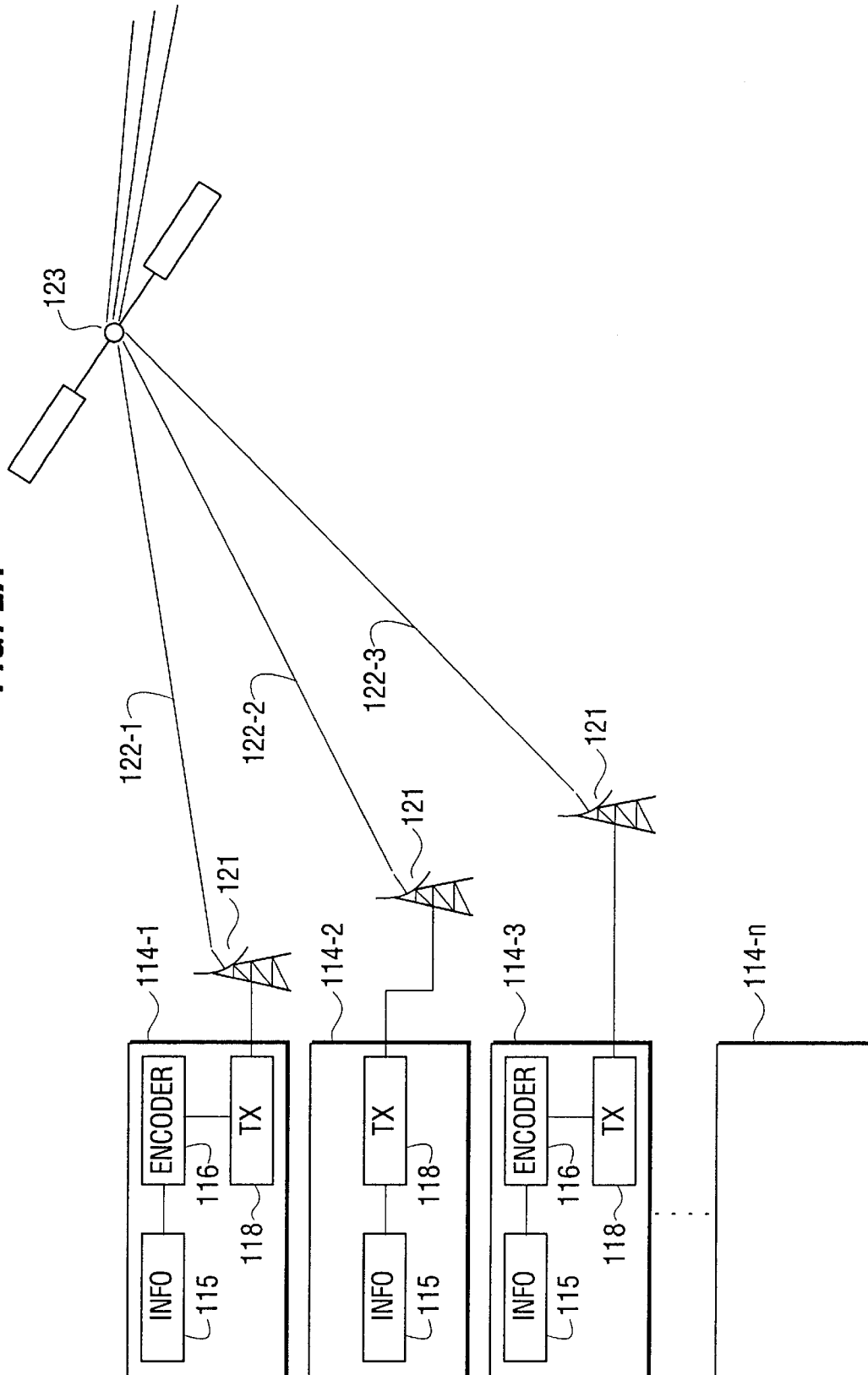


FIG. 2B

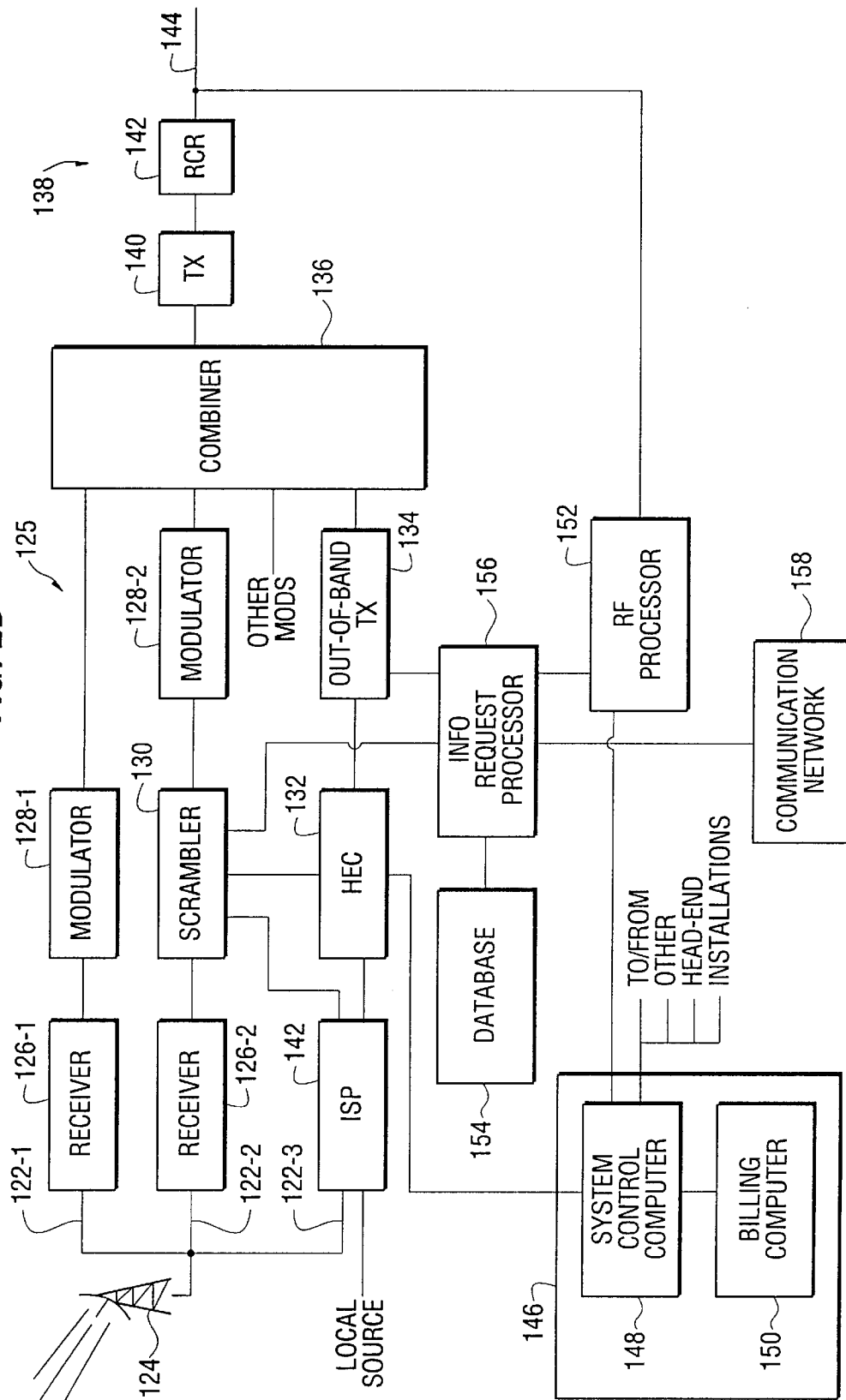
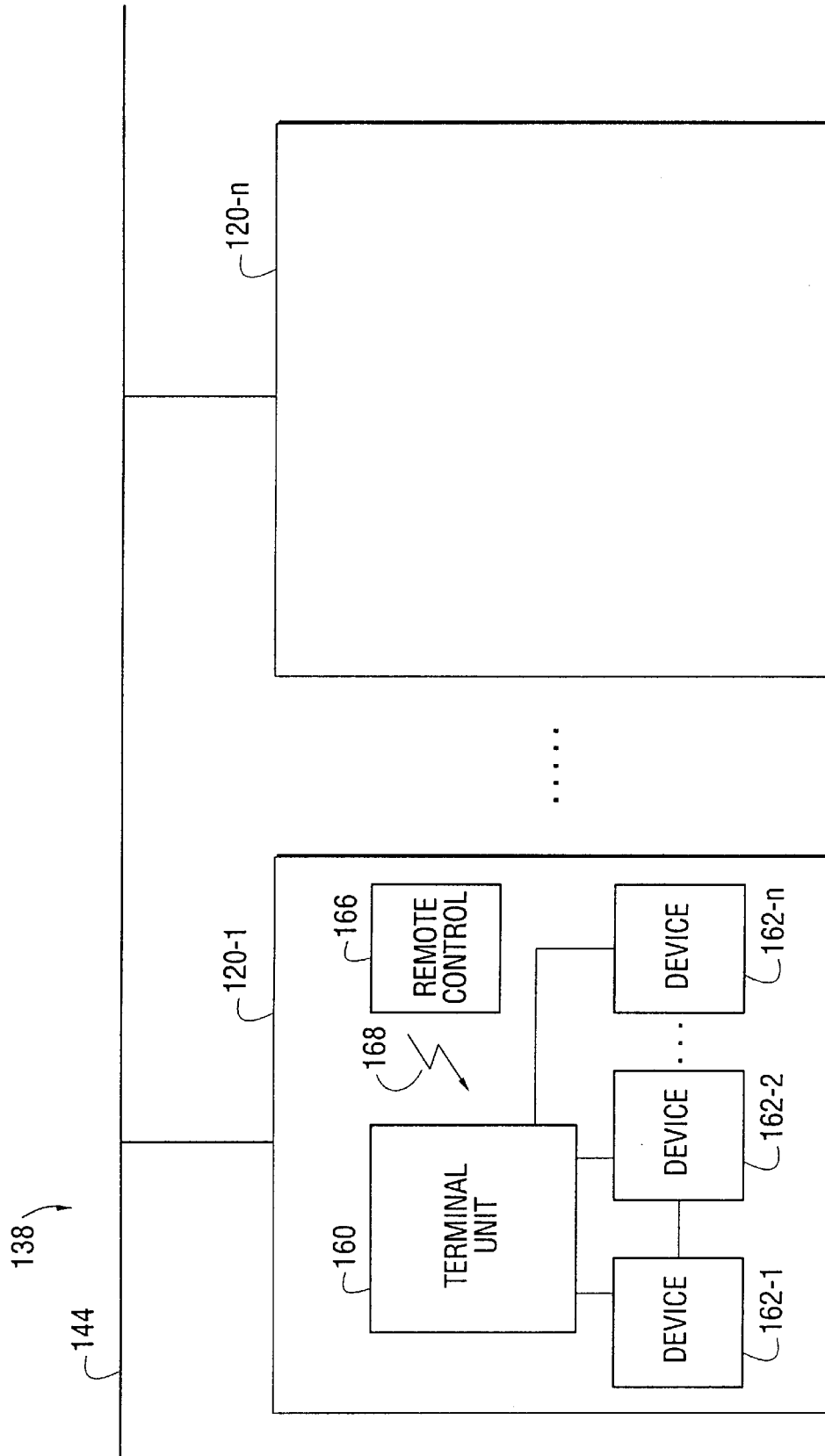


FIG. 2C



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