United States Patent [19]

Doughty

[56]

[11] Patent Number:

4,582,956

[45] Date of Patent:

Apr. 15, 1986

[54]	METHOD AND APPARATUS FOR DISPLAYING AT A SELECTED STATION
	SPECIAL SERVICE INFORMATION
	DURING A SILENT INTERVAL BETWEEN
	RINGING

[75] Inventor: Carolyn A. Doughty, Wheaton, Ill.

[73] Assignee: AT&T Bell Laboratories, Murray

Hill, N.J.

[21] Appl. No.: 513,080

[22] Filed: Jul. 12, 1983

[51] Int. Cl.⁴ H04M 11/00; H04M 15/06

[52] U.S. Cl. 179/2 A; 179/5.5;

179/2 AS, 2 DP, 5.5, 5 R, 5 P, 6.16, 18 B, 18 FH, 18 HB, 18 BF, 18 BG, 84 R, 84 A, 84 C, 84 SS, 99 P

References Cited

U.S. PATENT DOCUMENTS

O.S. TITTETT DOCUMENTS			
		Palsa 179/2 DP	
		Paraskevakos 178/28	
3,868,640	2/1975	Binnie et al 179/2 AM	
4,140,882	2/1979	Regan et al 179/84 L	
4,242,539	12/1980	Hashimoto 179/5.5	
4,289,931	9/1981	Baker 179/18 FH	
4,383,138	5/1983	Castro et al 179/2 A X	

FOREIGN PATENT DOCUMENTS

0082512 12/1982 European Pat. Off. . 2720435 5/1977 Fed. Rep. of Germany .

3025462 4/1980 Fed. Rep. of Germany . 2183442 12/1973 France .

Primary Examiner—Gene Z. Rubinson Assistant Examiner—W. J. Brady

Attorney, Agent, or Firm—Richard J. Godlewski

[57] ABSTRACT

Method and apparatus is disclosed for displaying special service information at a selected station during a silent interval between ringing. The apparatus, a data receiver (100), is connected to the tip and ring leads of any wellknown station set and comprises a line interface unit (101), a converter (102), a control circuit (103), and a display unit (126). A frequency shift keyed (FSK) signal which represents the special service information is filtered from the ringing signals by the line interface unit. The converter detects the FSK signal and demodulates the special service information from the FSK signal. Upon detection of the FSK signal, the control circuit receives and stores the special service information. The stored special service information is then periodically sent to the display unit to begin exhibiting the information during the silent interval before the next ringing signal.

14 Claims, 11 Drawing Figures

