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(54) **COMMUNICATIONS WEBS WITH PERSONAL COMMUNICATIONS LINKS FOR PSTN SUBSCRIBERS**

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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 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

(63) Continuation-in-part of application No. 08/843,200, filed on Apr. 16, 1997, now Pat. No. 6,058,104, which is a continuation of application No. 08/709,597, filed on Sep. 9, 1996, now Pat. No. 5,805,582, which is a continuation of application No. 08/262,214, filed on Jun. 17, 1994, now Pat. No. 5,555,258.

(51) **Int. Cl.**⁷ **H04J 15/00**

(52) **U.S. Cl.** **370/352; 370/338**

(58) **Field of Search** 455/422, 557, 455/558, 517, 419, 420, 421; 370/328, 338, 493, 536, 537, 535, 542, 352, 401, 419; 375/220, 222, 257

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Primary Examiner—Ajit Patel

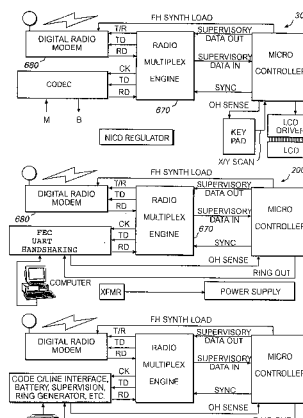
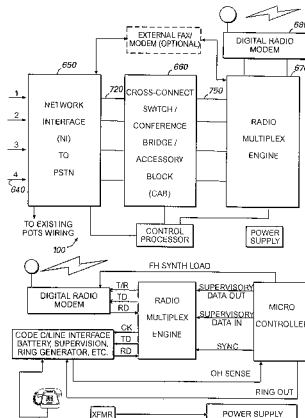
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(57) **ABSTRACT**

Systems for connecting telecommunications infrastructure lines to telephones, handsets, computers, teletype machines and other end user interfaces or consumer electronics devices in a residence or business. Systems according to the present invention include Network Control Units which form the center of a star topology and which communicate via RF link with Wireless Access Units and handsets. Wireless Access Units feature an interface, such as, for example, a standard telephone jack, for accommodating a telephone, a fax machine, a compute modem or other device. Computers or other devices may also be accommodated by Wireless Access Units having other physical and virtual interfaces, including, for instance, serial ports or network interfaces. The Wireless Access Units may also be digital to accommodate ISDN or any other digital standard. Wireless control/monitoring accessories may also be employed to communicate with the Network Control Unit and provide additional functionality such as entrance monitoring, baby monitoring, HVAC control and other services. Personal Communication Links provide wireless handset and speakerphone services. The Personal Communication Links include independent talk/listen paths from the unit to the Network Control Unit. In addition, each Personal Communication Link includes circuitry for automatically adjusting from high-volume/high-microphone sensitivity for speakerphone operation to low-volume/low-microphone sensitivity for conventional handset operation.

29 Claims, 20 Drawing Sheets



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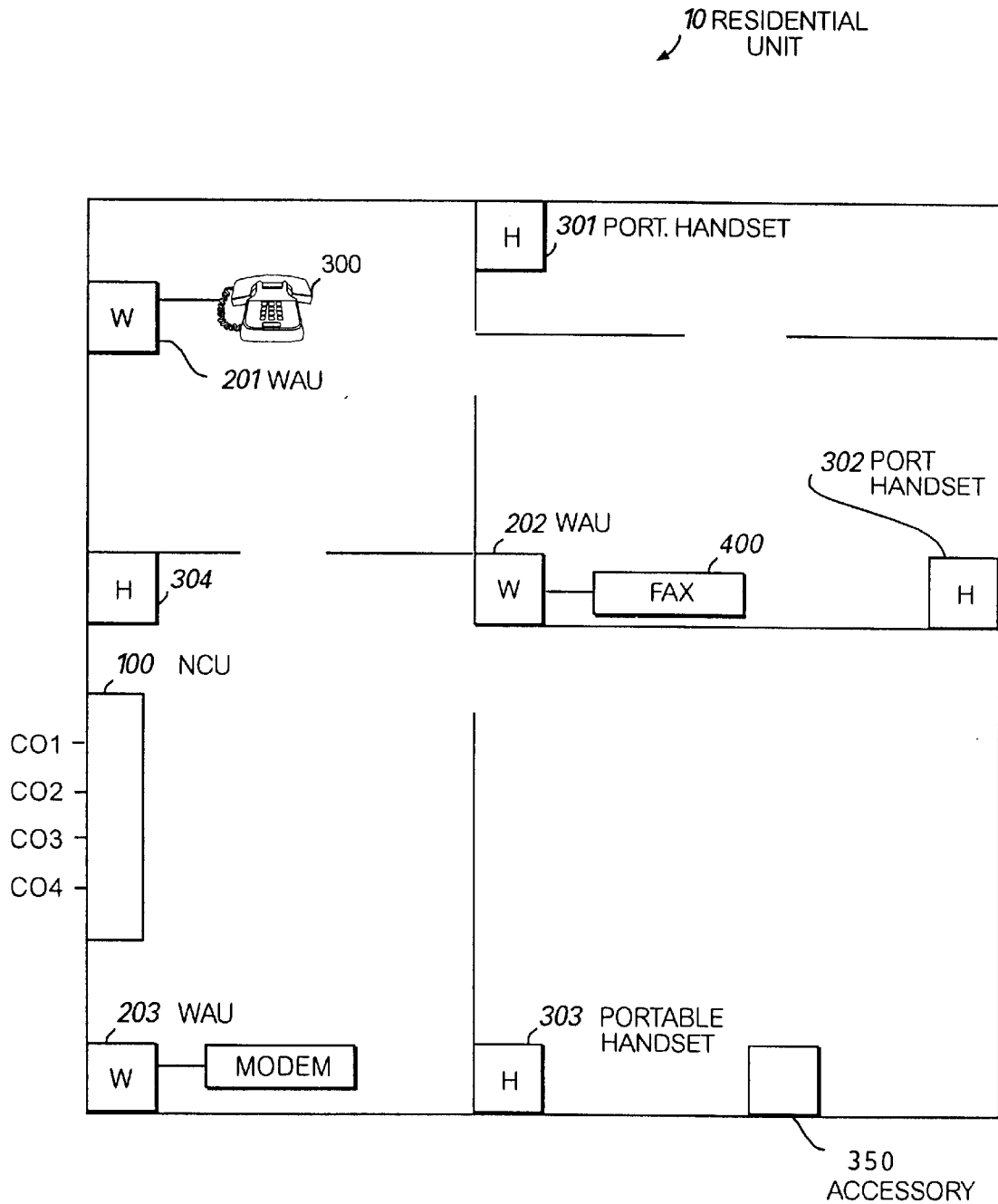


FIG.1

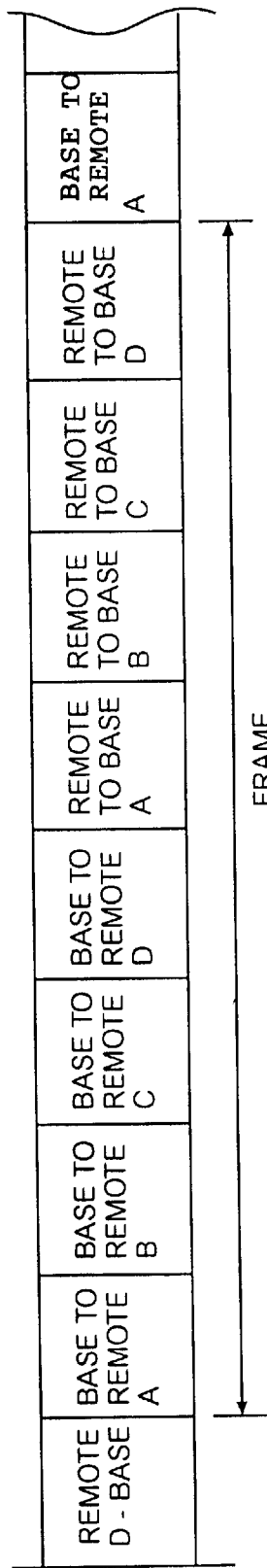


FIG.2

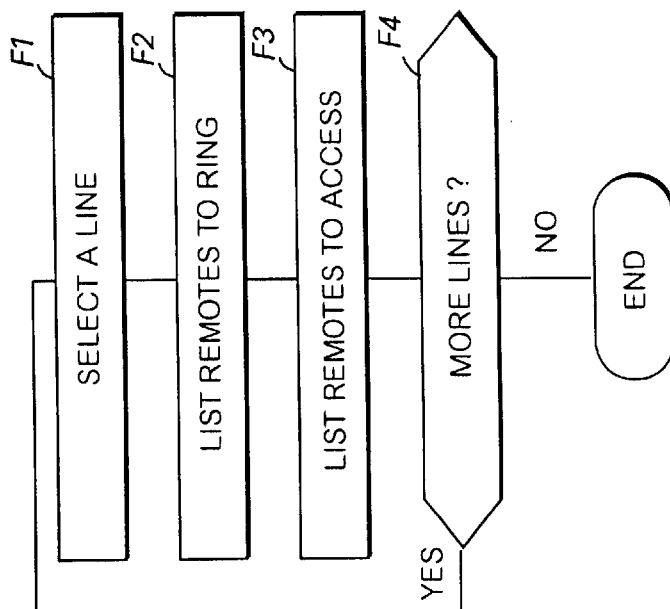


FIG.11A

| LINE | RING | ACCESS |
|------|-----------------------|-----------------------|
| 1 | 201, 203 301 - 304 | 201, 203 301 - 304 |
| 2 | 201, 203 301 - 304 | 201, 203 301 - 304 |
| 3 | 301 | 301 |
| 4 | 202 | 202 |

FIG.11B

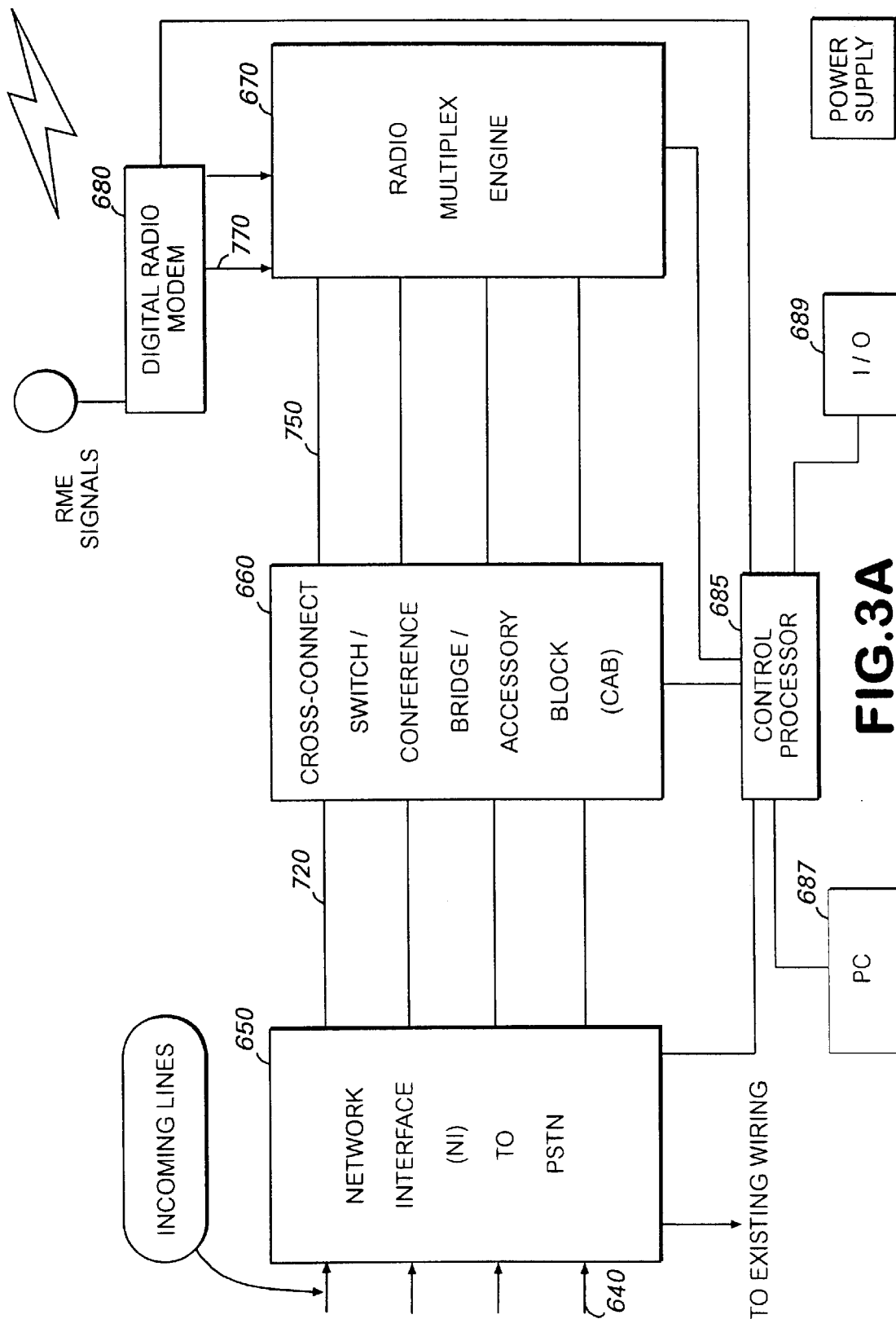


FIG. 3A

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