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LODGING II
SYSTEM
ADMINISTRATOR
MANUAL

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LIST OF ILLUSTRATIONS

1. INTRODUCTION

The **Lodging II** System Administration Guide is designed to assist the system administrator in setting up and operating the **Lodging II** system and configuring it for the particular hotel/motel setting in which it is to be used. The **Lodging II** system is extremely flexible and, using the procedures described in this guide, can be configured to fit a great variety of hotel/motel environments.

1.01 The system administrator will also need to be familiar with the Installation Guide, which is used to set up the computer and load the **Lodging II** program, and the **Lodging II** User Manual, which describes the day-to-day front desk operations of the system. If he wishes to use the specialized call accounting reports available in the **Lodging II** system, the system administrator will also need to refer to the **Lodging II** User Guide

2. OVERVIEW OF SYSTEM CONFIGURATION

2.01   Startup and Main Menu.   Once the installation procedures are completed, the **Lodging II** system should be running.   If it is not (and assuming the installation procedures were successfully followed), it may be started automatically by turning the computer power switch off and then on again.   The software load process takes from two to three minutes, depending on the computer being used.   When all the software is loaded and running, the system will display on the computer console the log-in screen shown in Figure 2-1.

2.02   Type a valid user name and press **ENTER.**   The cursor will move to the password line.   Type the password that is associated with that user name and press **ENTER.** Each letter of the password is displayed as a "." to maintain the security of the password.

2.03   When delivered, the **Lodging II** system is set up with a single valid user name, ADMIN-SYSTEM.   There is no password associated with this user name; just pressing **ENTER** a second time is sufficient.   One of the first tasks for the system administrator, when configuring the **Lodging II** system, is to assign a password to this user name and set up new names and passwords for himself and those who will be using the system.

2.04   If a valid user name and password are entered, the Main Menu (Figure 2-2) of the **Lodging II** system will be displayed; if not, the system prints "Incorrect login" and puts the cursor back to the user name field.   Each valid user name and password has associated with it a security level that controls which menu options may be selected.

2.05   Each of the items on the main menu is described briefly below.   The remainder of this Administration Guide is essentially a detailed description of items 2 and 3. Items 1, 4 and 5 are described in detail in the **Lodging II** User Manual.   Item 6 is defined here.

```
-----------------------------------------------------------------------------




                              LODGING II A1.01
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                            All Rights Reserved
                            Software and Database


             User Name _____

             Password _____


   -----------------------------------------------------------------------
   ---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10---


   -----------------------------------------------------------------------
```

Figure 2-1.   Log-In Screen

```
-------------------------------------------------------------------------
                                                    Thu  Jan  1  1987

                        Main Menu

                1. Reports
                2. System Configuration
                3. System Functions
                4. Batch Reports
                5. Front Desk Operations
                6. Logout




 -------------------------------------------------------------------------
  Please enter menu selection __

 ---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----
                                                              :  Exit
-------------------------------------------------------------------------
```

Figure 2-2. Main Menu

1. **Reports.** This item includes cost allocation reports to assign telephone costs to
    administrative phones, cost control reports to investigate especially long or
    expensive calls, and trunk traffic reports to analyze usage of outside trunks.
    For details, see the **Lodging II** User Guide.

    <u>NOTE:</u> Reports specific to the hotel/motel environment are not included
    in this menu item but can be found under item 5, Front Desk Operations.

2. **System Configuration.** This menu item enables the system administrator to
    configure the system for the particular hotel/motel environment in which it is
    to be used. Guest room and administrative telephones, outside trunk groups,
    call costing and pricing strategies, etc. are defined here. The entire system
    may be set up to operate in the manner desired by the system administrator.
    For details, see Sections 2 through 7 of this document.

3. **System Functions.** Some of the more critical of the **Lodging II** system features,
    such as shutting down the entire system, are grouped under this menu item. It
    can only be accessed by a person logging-in with a user name assigned the highest
    level of security, typically the system administrator. For details, see Section 8
    of this document.

4. **Batch Reports.** This function allows a batch of up to 20 reports to be specified
    and executed with a single command (for example, a group of week-end or month-
    end reports). Up to 20 report batches can be defined in a system. For details,
    see the **Lodging II** User Guide.

5. **Front Desk Operations.** This menu item includes the operations typically performed by hotel personnel on a day-to-day basis, such as Guest Checkout, Telephone Charges Posting Report, etc. For details, see the **Lodging II** User Manual.

6. **Log-out.** This menu item returns the user to the log-in screen where he may enter a new user name and password with a different security level.

2.06 System Configuration Tables. The Lodging II system is configured by entering data into the system configuration tables. These tables are accessed by selecting item 2 on the Main Menu, which leads to the System Configuration Menu shown in Figure 2-3. To access this menu, the user name and password entered at log-in must have a security level of 2 (for items 2, 3, 4, and 6 only) or 3 (all items). To change security level, select item 6 on the Main Menu to return to the log-in screen and enter a new name and password with the necessary security level.

2.07 Selections 1, 2, and 3 on the System Configuration Menu call up sub-menus and selections 4, 5, and 6 lead directly to data entry screens. In all, 16 tables may be configured by the system administrator in setting up the **Lodging II** system to perform in the desired manner.

2.08 Section 3 of this guide describes a simplified configuration procedure for the new system administrator who is not yet familiar with the full capabilities of the **Lodging II** system.

1. **Costing and Pricing Configuration.** Costing tables define how the **Lodging II** system will calculate and report the cost and price of a call. There are four costing tables and a table for naming frequently used telephone numbers in this sub-menu:

    A. Rate Record Table - This is the primary table in which the cost and price of a call are defined. Cost and price may be based on a flat rate, a

```
----------------------------------------------------------------------------
:                                                         Thu Jan 1 1987   :
:                                                                          :
:                                                                          :
:                                                                          :
:                      System Configuration Menu                           :
:                                                                          :
:                   1.  Costing and Pricing Configuration                  :
:                   2.  Extension Configuration                            :
:                   3.  Trunk Configuration                                :
:                   4.  System Parameters                                  :
:                   5.  Password Configuration                             :
:                   6.  Lodging Configuration                              :
:                                                                          :
:                                                                          :
:                                                                          :
: --------------------------------------------------------------------------:
: Please enter menu selection __                                           :
:                                                                          :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:      :      :      :      :      :      :      :      :      : Exit     :
:      :      :      :      :      :      :      :      :      :          :
----------------------------------------------------------------------------
```

Figure 2-3. System Configuration Menu

rate dependent on the duration of the call, or a rate dependent on the duration and the distance to the called point (using the CCMI rate tables described in Section 6 of this guide) and adjustments may be added for fixed costs, taxes, etc. There are 30 Rate IDs in the rate record table, each of which defines a method of costing and/or pricing calls.

B. Number Analysis Table - Normally, calls are costed according to the trunk group over which they occurred; however, the number analysis table overrides the Rate ID that is defined for this trunk group. It defines specific dialed telephone numbers that are to be costed in a unique way and identifies which Rate IDs will be used to cost or price them.

C. OCC Choice Table - As described in Section 5, the OCC choice table enables the **Lodging II** system to cost calls correctly. Even if the PBX is connected to a central office that does not offer equal access to OCCs (other common carriers), the PBX may still access OCCs by dialing their local number directly.

D. Local Call Table - This table uses CCMI rate table data to identify local calls. The system then costs and prices the calls according to the specified Rate IDs.

E. Named Telephone Numbers - The named telephone number table enables the system administrator to attach a name to commonly dialed numbers so that they can more easily be identified in cost control reports. When a call with a dialed number that appears in the named telephone number table is included in a cost control report, the name will be printed instead of the telephone number in the report's called number field. This applies only to cost control reports, not to the reports generated from the Front Desk Operations option in the Main Menu.

2. **Extension Configuration.** Extension tables define various properties of the PBX telephone extensions. Extensions may be designated as guest room or administrative; extension and organization groups may be defined, as well as account numbers. Six data tables are included:

A. Extension Groups - Extension groups are used to associate administrative extensions into groups for reporting purposes. Any number of extensions can be included in a group and the system does not limit the number of groups. In a hotel or motel, it is usually not necessary to use extension groups for the guest room extensions.

B. Extensions - The extension table defines the individual telephone extensions and their parameters to the **Lodging II** system.

C. Organization Groups - Organization groups are comprised of extension groups and other organization groups. Such groups allow a company's organizational structure to be duplicated within the system. This enables telephone costs to be distributed precisely within a company. In a hotel or motel, it is usually not necessary to use organization groups for the guest room extensions.

D.   Account Numbers - If account numbers (codes) are used on calls made from administrative telephones, this table allows names to be attached to the account numbers, making reports based on account number more readable. In a hotel or motel, it is usually not necessary to use account numbers.

E.   Retroactive Account Code Entry - This table provides a method of modifying or adding an account code to calls that have been completed and previously stored by the system. The feature is used in conjunction with the "detail by extension" report to update data on the system so that reports that include account numbers are accurate.

F.   **focusMail** Extensions - When the **Lodging II** system is installed on a PBX that is also equipped with a **focusMail** voice messaging system, the **focusMail** access ports should be defined in this table. This allows the **Lodging II** system to associate, in the call accounting reports, the correct user extension with any outside calls made by the **focusMail** system on behalf of an extension. The **focusMail** extensions should also be entered into the extension table so incoming call usage of **focusMail** can be tracked.

3.   **Trunk Configuration.** When the PBX is configured, trunk circuits are given numbers and are assigned to trunk groups. These trunk and trunk group assignments must be entered into the **Lodging II** system. There are two trunk-related tables:

A.   Trunk Group Table - Trunk groups in the **Lodging II** system normally correspond to the trunk groups in the PBX. The trunk group table defines and names each trunk group and establishes the Rate IDs that will be used to cost and price incoming and outgoing calls on that trunk group. It can also be used to set up a unique assumed answer time for the trunk group, different from the system-wide assumed answer time defined during system parameter configuration.

B.   Trunk Circuit Table - This table is used to define each trunk and the trunk group to which each trunk circuit belongs.

4.   **System Parameters.** The system parameter table defines a variety of parameters which affect the overall operation of the system. In a hotel/motel environment, the most important system parameters are the number of digits in the PBX telephone numbers (2, 3 or 4), whether or not the system is equipped with an external call record buffer between the **Lodging II** system and the PBX and whether call pricing is needed.

5.   **Password Configuration.** The system password table defines the name of each authorized system user, the password he is to use, and his security level (i.e., his level of access to the various functions provided by the system).

6.   **Lodging Configuration.** The lodging table defines certain parameters related to hotel/motel front desk operations, such as the destination and format of the output of priced calls, the security code for entry of room status by maids, etc.

2.09   Sequence for Configuring Data Entry Tables. The configuration portion of the **Lodging II** system has extensive error checking built in to ensure that the information being entered into each table not only is in the correct format but also makes sense in relation to the other tables. When an entry is made into a configuration table, it is verified against the rest of the configuration tables for consistency. This operation

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has the advantage of notifying the system administrator immediately of a conflict or inconsistency in the entered data, but it requires that data be entered into the tables in a specific order to prevent rejection of the input. The suggested order for configuring the tables is as follows:

1.   **System Parameters.**

2.   **Password Configuration.** The password entry can be done at any point in the configuration; however, since passwords provide security against unauthorized use of the system, the system administrator should configure the user names and passwords as soon as possible.

3.   **Extension Configuration.** Extension groups (if used) must be defined before individual extensions. Organization groups (if used) are defined using the add function and sub-groups for each organization group are assigned. (The retroactive account code entry feature can be ignored for now.) Suggested order:

> Define extension groups (if used)
> Define extensions
> Define organization groups (if used)
> Define account numbers (if used)
> Enter **focusMail** extensions (if used)

4.   **Costing and Pricing Configuration.** Rate records (Rate IDs) must be defined before entering any other costing or pricing table or adding trunk groups. Once the Rate IDs have been input, the remaining costing and pricing tables may be completed. Suggested order:

> Rate Record Table
> Number Analysis Table (if default values are not acceptable)
> OCC Choice Table (if PBX is configured for OCC choices)
> Local Call Table (if required)
> Named Telephone Number Table (if desired)

5.   **Trunk Configuration.** Trunk groups must be identified before trunk circuit numbers can be added; that is:

> Trunk Groups
> Trunk Circuit Assignments

6.   **Lodging Configuration.** This information can be entered at any point in the configuration process.

2.10   Ending a Configuration Session. When changes have been made to the system parameter table or the lodging configuration table, the **Lodging II** system must be shut down and restarted to allow the new configuration information to take effect. For consistency, it is recommended that the system be shut down and restarted after every configuration session. (See Section 8 for procedure.)

2.11   The **Lodging II** system must also be shut down and restarted after the date or time in the PBX has been reset manually to allow it to synchronize with the PBX.

3. SAMPLE SYSTEM CONFIGURATION

3.01 The configuration procedures described in this section assume a fairly simple installation, consisting of a **focus 960** PBX, the **Lodging II** system, and a property management system (PMS). The **Lodging II** system is assumed to be equipped with voice cards for entry of room status by maids and a backup printer for recording call records and room status and unsuccessful wakeup attempts. The PBX is assumed to have only one trunk group to the central office and to use only one long distance carrier, AT&T.

3.02 Actual **Lodging II** installations will differ in detail from this idealized and simple case, but the general configuration procedures will still apply with appropriate modifications.

3.03 Ordering and Installation. When the **Lodging II** system was ordered, CCMI rate tables should have been ordered as well, customized to the location where the PBX is installed. It is assumed that the rate tables were ordered with costing for only one carrier, AT&T, but with whatever other options were desired (details for some or all NPAs in North America, international costing, etc.).

3.04 The **Lodging II** system should be installed in accordance with the procedures in the Installation Guide. Instructions include setting up the hardware, loading the software and rate tables, and starting the **Lodging II** program.

3.05 Log-In. Log-in to the **Lodging II** system with a user name and password that has a security level of 3. (If the system has not previously been configured at all, the only valid user name is ADMIN-SYSTEM with no password; type ADMIN-SYSTEM and press **ENTER** twice.) At the Main Menu, select System Configuration and press **ENTER** as explained in Paragraphs **2.01** and **2.06.**

3.06 System Parameter Configuration. Select System Parameters from the System Configuration Menu and press **ENTER.** Using the TAB key to move from field to field, skip over the minimum values and assumed answer time fields; this will allow all calls to be sent to the PMS system and be available for all reports. Enter the following information: whether or not there is a call record buffer between the PBX and the **Lodging II** system; whether or not calls should be priced (answer Yes); and the number of digits to be in the extension numbers (typically 3 or 4; the entry here must agree with the number of digits to be programmed under "Extension Configuration"). Press F1 to enter the information into the system parameter table and then F10 to return to the System Configuration Menu. For details, see Paragraph **7.21.**

3.07 Password Configuration. Select Password Configuration on the System Configuration Menu. On the Enter Mode screen (see upper left-hand corner), press F1 to enter the Add Mode. For security reasons, a password should be assigned to the default user name. Type in **ADMIN-SYSTEM** and press **ENTER.** Select a password (no more than 8 characters). The security level of 3 cannot be changed so press the F1 function key to save the data.

3.08 Type in a user name for system administration (e.g. ADMIN) and press ENTER. Enter a password to be associated with this user name, press TAB to move to the next field, and set the security level at 3 (the highest level). Press F1 to enter this information into the password table. Type a user name such as AUDITOR for auditor reports (Telephone Profit Report, Posting Report, etc.) and press ENTER. Enter a password to be associated with this user name, TAB to the next field, and set the

security level at 2 (this level allows access to most of the system configuration screens). Press F1 to enter this information into the password table. Type a user name such as FRONTDESK for front desk operations (Guest Checkout, Guest Room Telephone Status reports, etc.) and press **ENTER.** Enter a password to be associated with this user name and set the security level at 1. (This level also allows access to all the SMDA reports, item 1 on the Main Menu.) Press F1 to enter this information into the password table. Make a careful note of the names and passwords entered; after log-out, the **Lodging II** system cannot be entered again without a pre-programmed name and password.

3.09 When all entries have been made, press F10 twice to return to the System Configuration Menu. For details, see Paragraph **7.22.**

3.10 Costing and Pricing Configuration – Rate Record Table. Select Costing and Pricing Configuration on the System Configuration Menu, then select Rate Records on the costing and pricing screen. Assume that Rate ID 1 (AT&T-DDD in the CCMI rate tables) is to be used for costing calls. One of the user-defined rate IDs (15-30) can now be programmed to establish the pricing parameters.

3.11 At the enter Mode screen (see upper left-hand corner), press F1 to go to the Add Mode. Select "15" as the Rate ID and press **ENTER.** In the "Predefined Rate ID" field, enter 1 to identify the link with the AT&T-DDD table. Use the TAB key to move the Increase Cost or Price By field and enter the markup (over actual cost) desired for call pricing. As an example, entering 50 will give a 50% markup; a call costing $1.00 according to the rate tables will be priced at $1.50 in the call record which is sent to the PMS or printed out in a front desk report. Press F1 to enter this information into the rate record table, then press F10 three times to return to the System Configuration Menu. For details, see Sections **5, 6,** and Paragraph **7.03.**

3.12 Extension Configuration – Extension Table. Select Extension Configuration from the System Configuration Menu, then Extensions on the Extension Configuration screen. At the Enter Mode screen (see upper left-hand corner), press F1 to go to Add Mode. Enter an extension (telephone) number that exists in the PBX and press **ENTER.** Using the TAB key to move from field to field, skip over the first few fields and set the Unlisted, No Number, and No Detail fields to N. Define the extension as a G(uest) room or an A(dministrative) extension. Press the F2 key to enter this information into the extension table while retaining the values displayed on the screen. Enter another extension number, press **ENTER,** and proceed as above. All extension numbers must have the same number of digits and this number, typically 2, 3 or 4, must be defined in the system parameter table, as described in Paragraph **3.06,** above.

3.13 Repeating the above procedure defines all the extensions in the PBX for the **Lodging II** system. When all the extensions have been identified (and the information on the last extension has been entered into the extension table by pressing F1 or F2), press F10 three times to return to the System Configuration Menu. For details, see Paragraph **7.12.**

3.14 Trunk Configuration – Trunk Groups. Select Trunk Configuration from the System Configuration Menu, then Trunk Groups from the Trunk Configuration screen. At the Enter Mode screen (see upper left-hand corner), press F1 to go to Add Mode. Type the number of the PBX trunk group connected to the central office and press **ENTER.** Using the TAB key to move from field to field, name the trunk group "Central Office" and assign the incoming call cost to Rate ID 14 (no charge) and outgoing call cost to Rate ID 1 (AT&T-DDD). The incoming call price can be assigned to Rate ID 14 and

outgoing price to Rate ID 15. Press F1 to enter this information into the trunk group table and then press F10 three times to return to the System Configuration Menu. For details, see Paragraph 7.19.

3.15 Trunk Configuration - Trunks. Select Trunk Configuration from the System Configuration Menu, then Trunks from the Trunk Configuration screen. At the Enter Mode screen (see upper left-hand corner), press F1 to go to Add Mode. Type the number of a trunk circuit in the PBX (in the format XX.XX) and press **ENTER.** Enter the number of the trunk group to which the trunk belongs (the central office trunk group). Press the F2 key to enter this information into the trunk table while retaining the values displayed on the screen. Enter another trunk number, press **ENTER,** and proceed as above.

3.16 When all the trunks have been identified (and the information on the last trunk has been entered into the trunk table by pressing F1 or F2), press F10 three times to return to the System Configuration Menu. For details, see Paragraph **7.20.**

3.17 Lodging Configuration. Select Lodging Configuration from the System Configuration Menu. Using the TAB key to move from one field to the next, enter the following information: Y, indicating the PBX has a voice messaging system; the extension numbers in the PBX of the voice cards used for room status input by maids; the security code for entry of room status, if a security code is to be used; and the destination of priced calls (enter a 0 for PMS). The other fields either have the correct default values or are not relevant. Press F1 to enter the information into the lodging table, then F10 to return to the System Configuration Menu. For details, see Paragraph **7.23.**

3.18 Shutdown and Restart. At the end of the configuration session, the **Lodging II** system must be shutdown and restarted to allow the new configuration information to take effect. Press F10 to return to the Main Menu. Select System Functions from the Main Menu and Shutdown System from the System Function Menu. When either shutdown option is selected, the **Lodging II** system will display certain warnings. These are necessary because, during the shutdown process, the system will not accept any call records from the PBX. During this period, either PBX call activity must be halted or there must be an external buffer to collect call records (or the loss of some call records during the restart process must be accepted).

> **NOTE:** After completing the Shut Down procedure it is recommended that you back up your data base, thereby storing the information programmed thus far on floppy disk. Refer to Paragraph **8.06**

3.19 Select item 1 from the Shutdown Menu, Shutdown and Exit to Operating System. Enter Y and press **ENTER.** Wait for the message **"In process of shutting down Lodging II system"** to disappear. The next message will tell you to press the CTRL, ALT, and **DEL** keys simultaneously to restart the system. When the loading and starting sequence is finished, the system will display the log-in screen and begin collecting call records. The new configuration information will be in effect. For details, see Section **8.**

4. CONFIGURATION PROCEDURES

4.01   General Procedures for Data Entry. Some general considerations which apply to all configuration data entry are described below.

1.   **Screen Editing and Function Keys.** The configuration of the **Lodging II** system is screen oriented (i.e., data are entered into predefined fields on the screen of the system console); when all information has been entered, pressing a designated function key causes the system to verify and save the data. On many of the screens, it is sufficient to press the **ENTER** key (<—') instead of the F1 function key.

2.   **TAB Key.** The TAB key, usually designated with left- and right-facing arrows (< — — >), is used to accept the information entered in a field and advance the cursor to the next entry field on the screen. If the cursor is on the last field of the screen when the **TAB** key is pressed, the cursor is moved to the first character of the first parameter field on the screen. To enter or change the information in a field, simply type the desired numbers or words starting at the first character of the field. The old information in the field is automatically erased when the first character is entered. When the information is complete, press the **TAB** key to move to the next field. (It is not necessary to fill in all of the blank spaces of a field before pressing the **TAB** key.) Pressing the **SHIFT** key at the same time as the **TAB** key moves the cursor to the previous data field on the screen instead of the next field.

3.   **Arrow Keys.** The left and right arrow keys located on the number keypad of the computer can be used to move the cursor within a data field. This allows individual characters to be changed without having to enter the entire field over again.

4.   **Modes.** (The information that follows does not apply to certain tables, such as System Parameters and Lodging, which do not use key values.) When a configuration table is called up, the system is in Enter Mode and displays a sample of the data entry screen for the table selected. Four functions are available from the Enter Mode screen:

   A.   Add Mode, for entering new information into a configuration table.

   B.   Change/Look Mode, for modifying or examining information that is already in the configuration table.

   C.   Delete Mode, for removing existing entries from a configuration table.

   D.   Print Mode, for sending a configuration table to the system printer.

5.   **Key Fields.** (The information that follows does not apply to certain tables, such as System Parameters and Lodging, which do not use key values.) A key field is one that defines the contents of a table; for example, the trunk number is the key field in the trunk table. When a value is entered in a key field, the system verifies the value for legal characters and checks whether the key already exists in the table. An item may not be added to a table if one with the same key is already in the table and an item cannot be deleted or changed if it is not already in the table. If the system detects an error, it will sound a tone and reposition the cursor at the error. (**Exception:** In the extension table, which uses the extension number as the key, it is possible to have more than one entry

with the same extension number, i.e., the same key. This is useful when two or more people share a telephone and listing all the users in the telephone directory is desired. When reports are generated for such an extension, only the user name entered first during configuration will be shown with the extension number in the reports.)

6. **Parameters.** Parameters are additional fields that are associated with a particular key value; for example, the trunk group associated with a trunk, the costs associated with a rate record, etc. (In the case of tables which do not use key values, all fields are parameter fields.) When entering parameters, the TAB key is used to move from one field to another. Parameters may be required or optional. The system will assume and display a default value for each optional parameter that is not entered; often the optional value will be blank or null.

7. **Validation of Entered Data.** When data entry is complete and a function key (or ENTER) is pressed, the system validates the information on the screen. Not all parameters are checked, only those where an error would affect the operation of the system. If an error is found, the system will sound a tone and position the cursor on the parameter that is at fault. A message is printed on the prompt line of the screen, explaining the error. The user must then re-enter the data that were rejected.

4.02 Procedure for Adding Information to a Table. The following explains in detail the procedure for adding information to a table. The extension table is used as an example but the procedure and use of function keys apply to any table that uses key values.

1. **Select Table to be Edited.** Select System Configuration (item 2) from the Main Menu, the desired configuration category from the System Configuration Menu, and the desired table from the sub-menu, if necessary. The system presents a sample data entry screen for the selected table (Figure 4-1) in the Enter Mode, as indicated in the upper-left corner of the screen.

2. **Press the Add Function Key (F1).** The system will advance to the Add Mode, as indicated in the upper-left corner of the screen, and the cursor will be positioned in the Key field (Figure 4-2) (* = cursor).

3. **Enter the Key Information and Press ENTER or F1.** The system verifies the key field for legal characters and confirms that the key does not exist in the table. A key may not be added if it is already in the table. (**Exception:** In the extension table, it is permissible to have multiple entries with the same key value; this is useful when having several names in the telephone directory with the same extension number is desired.) If the system detects an error, it will sound a tone and reposition the cursor in the key field. If the system accepts the key, the cursor is moved to the parameter area (Figure 4-3) and the function key labels are changed as shown.

4. **Enter Parameter Information Associated with the Key Value.** Use the TAB key to move from one field to another (Figure 4-4). Some parameters are optional and these fields may be skipped over. Others are required; the system will not leave the screen until they have been entered.

```
------------------------------------------------------------------
: Enter Mode               Extension Number Entry      Thu Jan 1 1987 :
:                                                                     :
:           Extension Number _____      Date Modified MM/DD/YY       :
:                                                                     :
:           Last Name _____      First Name _____           :
:                                                                     :
:           Location _____                            :
:                                                                     :
:           Extension Group _____                               :
:                                                                     :
:           Fixed Cost 0.00 ____                                      :
:                                                                     :
:           Unlisted   _  (Y/N)                                       :
:           No Number  _  (Y/N)                                       :
:           No Detail  _  (Y/N)                                       :
:                                                                     :
:           Ext. Type  _  (G/A)                                       :
:                                                                     :
:--------------------------------------------------------------------:
: Please select a function.                                          :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Add    :Change:Delete: Print:     :     :     :     :     :   : Exit :
:        :Look  :     :     :     :     :     :     :     :     :     :
------------------------------------------------------------------
```

Figure 4-1. Extension Number Entry Screen, Add Mode


```
------------------------------------------------------------------
: Add                       Extension Number Entry      Thu Jan 1 1987 :
:                                                                     :
:           Extension Number *_____      Date Modified MM/DD/YY       :
:                                                                     :
:           Last Name _____      First Name _____           :
:                                                                     :
:           Location _____                            :
:                                                                     :
:           Extension Group _____                               :
:                                                                     :
:           Fixed Cost 0.00 ____                                      :
:                                                                     :
:           Unlisted   _  (Y/N)                                       :
:           No Number  _  (Y/N)                                       :
:           No Detail  _  (Y/N)                                       :
:                                                                     :
:           Ext. Type  _  (G/A)                                       :
:                                                                     :
:--------------------------------------------------------------------:
:   Please select a function.                                        :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Accept:     :     :     :     :     :     :     :     :     : Exit :
------------------------------------------------------------------
```

Figure 4-2. Extension Number Entry Screen, Add Mode

```
-------------------------------------------------------------------
: Add                    Extension Number Entry          Thu Jan 1 1987  :
:                                                                         :
:           Extension Number  1234__      Date Modified   MM/DD/YY        :
:                                                                         :
:           Last Name *_____      First Name _____                :
:                                                                         :
:           Location _____                            :
:                                                                         :
:           Extension Group _____                                 :
:                                                                         :
:           Fixed Cost 0.00____                                          :
:                                                                         :
:           Unlisted   _  (Y/N)                                          :
:           No Number  _  (Y/N)                                          :
:           No Detail  _  (Y/N)                                          :
:                                                                         :
:           Ext. Type  _  (G/A)                               .           :
:-----------------------------------------------------------------------:
:   Please select a function.                                            :
:                                                                         :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Accept:Accept: Start:      :      :      :      :      :      : Exit    :
:  Clear: Keep : Over :      :      :      :      :      :      :         :
:-----------------------------------------------------------------------:
```

Figure 4-3. Extension Number Entry Screen, Add Mode

```
-------------------------------------------------------------------
: Add                    Extension Number Entry          Thu Jan 1 1987  :
:                                                                         :
:           Extension Number  1234__      Date Modified   MM/DD/YY        :
:                                                                         :
:           Last Name JONES_____      First Name JIM_____              :
:                                                                         :
:           Location North Plant_____                         :
:                                                                         :
:           Extension Group _____                                     :
:                                                                         :
:           Fixed Cost 0.00____                                          :
:                                                                         :
:           Unlisted   B  (Y/N)                                          :
:           No Number  N  (Y/N)                                          :
:           No Detail  N* (Y/N)                                          :
:                                                                         :
:           Ext. Type  G  (G/A)                                          :
:-----------------------------------------------------------------------:
:   Please select a function.                                            :
:                                                                         :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Accept:Accept: Start:      :      :      :      :      :      : Exit    :
: Clear : Keep : Over :      :      :      :      :      :      :         :
:-----------------------------------------------------------------------:
```

Figure 4-4. Extension Number Entry Screen, Add Mode

5.   **Select a Function to Complete Data Entry.** When all desired parameters have been entered, press one of the four labeled function keys (F1, F2, F3, F10):

F1 = Accept and Clear. This function accepts the data entered, validates it, and enters it in the configuration table. All fields are cleared and the cursor is positioned on the Key field, ready for entry of another key value. Continue with Step 3 above.

F2 = Accept and Keep. This function also accepts, validates, and stores the data entered but leaves the parameter data intact on the screen so that it may be used with the next key value. The Key field is cleared and the cursor is positioned at this field, ready for the next entry. Continue with Step 3 above. Step 4 will require changing only those fields which differ from previous input.

F3 = Start Over. This function is used to reenter the parameter information from scratch. The Key field is not affected. The screen is not validated nor is the information stored. The parameter information is cleared, and the cursor is positioned at the first parameter field. Continue with Step 4 above.

F10 = Exit. This function exits from the Add Mode and returns to the Enter Mode screen. The information that was entered is not validated or saved.

4.03   Procedure for Changing Information in a Table. The following explains in detail the procedure for changing information in a table. The extension table is used as an example but the procedure and use of function keys apply to any table that uses key values.

1.   **Select Table to be Edited.** Select System Configuration (item 2) from the Main Menu, the desired configuration category from the System Configuration Menu, and the desired table from the sub-menu, if necessary. The system presents a sample data entry screen for the selected table (Figure 4-5) in the Enter Mode, as indicated in the upper-left corner of the screen.

2.   **Press the Change/Look Function Key (F2).** The system will advance to the Change Mode, as indicated in the upper-left corner of the screen (Figure 4-6), and the cursor will be positioned in the Key field.

3.   **Enter the Key Information and Press ENTER or F1.** The system verifies the key field for legal characters and checks that the key exists in the table. An item cannot be changed if its key is not in the table. If the system detects an error, it will sound a tone and reposition the cursor in the key field. If the system accepts the key, the parameters associated with that key are displayed on the screen and the cursor is placed on the first parameter entry field (Figure 4-7).

4.   **Make Changes to the Parameters,** if desired, then press one of the five labeled function keys (F1, F2, F3, F4, F10).

F1 = Accept and Clear. This function accepts the parameters on the screen, validates them, and stores them in the table. All fields are cleared and the cursor is positioned on the key field, ready for the entry of the next key. Continue with Step 3 above.

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```
---------------------------------------------------------------
: Enter Mode                Extension Number Entry       Thu Jan 1 1987 :
:                                                                       :
:          Extension Number _____        Date Modified    MM/DD/YY     :
:                                                                       :
:          Last Name _____      First Name _____              :
:                                                                       :
:          Location _____                          :
:                                                                       :
:          Extension Group _____                                 :
:                                                                       :
:          Fixed Cost 0.00 ____                                         :
:                                                                       :
:          Unlisted  _ (Y/N)                                            :
:          No Number _ (Y/N)                                            :
:          No Detail _ (Y/N)                                            :
:                                                                       :
:          Ext. Type _ (G/A)                                            :
:                                                                       :
:----------------------------------------------------------------------:
:   Please select a function.                                          :
:                                                                       :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:   Add :Change:Delete: Print:     :     :     :     :     : Exit      :
:       :Look  :      :      :     :     :     :     :     :           :
---------------------------------------------------------------
```

Figure 4-5. Extension Number Entry Screen, Enter Mode

```
---------------------------------------------------------------
: Change                    Extension Number Entry       Thu Jan 1 1987 :
:                                                                       :
:          Extension Number *_____        Date Modified MM/DD/YY       :
:                                                                       :
:          Last Name _____      First Name _____              :
:                                                                       :
:          Location _____                          :
:                                                                       :
:          Extension Group _____                                 :
:                                                                       :
:          Fixed Cost 0.00 ____                                         :
:                                                                       :
:          Unlisted  _ (Y/N)                                            :
:          No Number _ (Y/N)                                            :
:          No Detail _ (Y/N)                                            :
:                                                                       :
:          Ext. Type _ (G/A)                                            :
:                                                                       :
:----------------------------------------------------------------------:
: Please select a function.                                            :
:                                                                       :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Accept:      :      :      :     :     :     :     :     : Exit      :
:       :      :      :      :     :     :     :     :     :           :
---------------------------------------------------------------
```

Figure 4-6. Extension Number Entry Screen, Change Mode

```
-------------------------------------------------------------------------
: Change               Extension Number Entry          Thu Jan 1 1987   :
:                                                                         :
:           Extension Number 2222__          Date Modified   MM/DD/YY     :
:                                                                         :
:           Last Name *JONES_____   First Name JIM_____               :
:                                                                         :
:           Location North Plant_____                         :
:                                                                         :
:           Extension Group _____                                      :
:                                                                         :
:           Fixed Cost 0.00____                                           :
:                                                                         :
:           Unlisted   N  (Y/N)                                           :
:           No Number   N  (Y/N)                                          :
:           No Detail   N  (Y/N)                                          :
:                                                                         :
:           Ext. Type   G  (G/A)                                          :
:                                                                         :
:-------------------------------------------------------------------------:
: Please select a function.                                               :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Accept:Accept:Next  :New   :      :      :      :      :      : Exit    :
: Clear :Next  :Rec   :Rec   :      :      :      :      :      :         :
-------------------------------------------------------------------------
```

Figure 4-7. Extension Number Entry Screen, Change Mode

F2 = Accept and Next. This function also accepts, validates, and stores the parameters on the screen but then automatically changes the key information to the next entry in the table. All information on this new key is displayed. The cursor is positioned on the first parameter entry field. Repeat Step 4 (this step) for the new item.

F3 = Next Record. This function is used to advance to the next entry in the table without modifying the parameters of the current key value. All parameters on the new key are displayed. The cursor is positioned on the first parameter entry field. Repeat Step 4 (this step) for the new item.

F4 = New Record. This function is used to select a new key value without modifying the parameters of the current key value. All fields are cleared and the cursor is positioned on the key entry field. Continue with Step 3 above.

F10 = Exit. This function exits from the Change Mode and returns to the Enter Mode screen. The information that was entered is not validated or saved.

4.04 Procedure for Deleting Information from a Table. The following explains in detail the procedure for deleting information from a table. The extension table is used as an example but the procedure and use of function keys apply to any table that uses key values.

1.   **Select Table to be Edited.** Select System Configuration (item 2) from the Main Menu, the desired configuration category from the System Configuration Menu, and the desired table from the sub-menu, if necessary. The system presents a sample data entry screen for the selected table in the Enter Mode, as indicated in the upper-left corner of the screen (Figure 4-8).

```
--------------------------------------------------------------------------
: Enter Mode                    Extension Number Entry        Thu Jan 1 1987  :
:                                                                             :
:           Extension Number _____        Date Modified MM/DD/YY             :
:                                                                             :
:           Last Name _____ First Name _____                        :
:                                                                             :
:           Location _____                                      :
:                                                                             :
:           Extension Group _____                                       :
:                                                                             :
:           Fixed Cost 0.00  ____                                             :
:                                                                             :
:           Unlisted  _  (Y/N)                                                :
:           No Number _  (Y/N)                                                :
:           No Detail _  (Y/N)                                                :
:                                                                             :
:           Ext. Type _  (G/A)                                                :
:                                                                             :
:----------------------------------------------------------------------------:
: Please select a function.                                                   :
:                                                                             :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:  Add  :Change:Delete: Print:      :      :      :      :      : Exit    :
:       :Look  :      :      :      :      :      :      :      :         :
--------------------------------------------------------------------------
```

Figure 4-8. Extension Number Entry Screen, Enter Mode

2.   **Press the Delete Function Key (F3).** The system will change to the Delete
      Mode, as indicated in the upper-left corner of the screen, and the cursor will
      be positioned in the Key field (Figure 4-9).


```
--------------------------------------------------------------------------
: Delete                        Extension Number Entry        Thu Jan 1 1987  :
:                                                                             :
:           Extension Number *_____        Date Modified MM/DD/YY            :
:                                                                             :
:           Last Name _____ First Name _____                        :
:                                                                             :
:           Location _____                                      :
:                                                                             :
:           Extension Group _____                                       :
:                                                                             :
:           Fixed Cost 0.00  ____                                             :
:                                                                             :
:           Unlisted  _  (Y/N)                                                :
:           No Number _  (Y/N)                                                :
:           No Detail _  (Y/N)                                                :
:                                                                             :
:           Ext. Type _  (G/A)                                                :
:                                                                             :
:----------------------------------------------------------------------------:
: Please select a function.                                                   :
:                                                                             :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Accept:      :      :      :      :      :      :      :      : Exit    :
:       :      :      :      :      :      :      :      :      :         :
--------------------------------------------------------------------------
```

Figure 4-9. Extension Number Entry Screen, Delete Mode

3. **Enter the Key Information and Press ENTER or F1.** The system verifies the key field for legal characters and checks that the key exists in the table. A key cannot be deleted if it is not in the table. If the system detects an error, it will sound a tone and reposition the cursor in the key field. If the system accepts the key, the information regarding that key is displayed on the screen (Figure 4-10) and the cursor is placed on the first parameter entry field.

4. **Delete the Record or Select Another Record** by pressing one of the five labeled function keys (F1, F2, F3, F4, F10).

   F1 = Delete and Clear. This function deletes the item shown on the screen, clears all fields, and positions the cursor on the key field, ready for the entry of the next key. Continue with Step 3 above.

   F2 = Delete and Next. This function also deletes the information on the screen, but automatically changes the key information to the next entry in the table. All information on this new key is displayed. The cursor is positioned on the first parameter entry field. Repeat Step 4 (this step) for the new item.

   F3 = Next Record. This function is used to advance to the next entry in the table without deleting the current entry. All information on the new key is displayed. The cursor is positioned on the first parameter entry field. Repeat Step 4 (this step) for the new item.

   F4 = New Record. This function is used to select a new key field without deleting the information on the entry. All fields are cleared and the cursor is positioned on the key entry field. Continue with Step 3 above.

   F10 = Exit. This function exits from the Delete Mode and returns to the Enter Mode screen. The item on the screen is not deleted.

```
-------------------------------------------------------------------------
: Delete                  Extension Number Entry        Thu Jan 1 1987   :
:                                                                        :
:          Extension Number 2222            Date Modified  MM/DD/YY      :
:                                                                        :
:          Last Name *JONES_____  First Name JIM_____                :
:                                                                        :
:          Location North Plant_____                           :
:                                                                        :
:          Extension Group _____                                      :
:                                                                        :
:          Fixed Cost 0.00_____                                          :
:                                                                        :
:          Unlisted   N   (Y/N)                                          :
:          No Number  N   (Y/N)                                          :
:          No Detail  N   (Y/N)                                          :
:                                                                        :
:          Ext. Type  G   (G/A)                                          :
:  ---------------------------------------------------------------------- :
: Please select a function.                                              :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Delete:Delete:Next :New  :     :     :     :     :     :     : Exit    :
: Clear :Next :Rec  :Rec  :     :     :     :     :     :     :         :
-------------------------------------------------------------------------
```

Figure 4-10. Extension Number Entry Screen, Delete Mode

4.05 Procedure for Printing a Table. The following explains in detail the procedure for printing a table. The extension table is used as an example but the procedure and use of function keys apply to any table that uses key values.

1.   **Select Table to be Printed.** Select System Configuration (item 2) from the Main Menu, the desired configuration category from the System Configuration Menu, and the desired table from the sub-menu, if necessary. The system presents a sample data entry screen from the selected table in the Enter Mode, as indicated in the upper-left corner of the screen (Figure 4-11).

2.   **Ready the Report Printer.** Ensure that the page break on the paper is correctly positioned and that the printer is on-line.

3.   **Press the Print Function Key (F4).** The entry screen is erased and the print screen (Figure 4-12) is displayed. While the system is printing, the screen shows the record number (item number in the table) that is currently being printed. When printing is completed, the system again displays the Enter Mode screen.

```
--------------------------------------------------------------------------
: Enter Mode              Extension Number Entry        Thu Jan 1 1987    :
:                                                                         :
:          Extension Number _____      Date Modified MM/DD/YY            :
:                                                                         :
:          Last Name _____ First Name _____                    :
:                                                                         :
:          Location _____                               :
:                                                                         :
:          Extension Group _____                                    :
:                                                                         :
:          Fixed Cost 0.00_____                                          :
:                                                                         :
:          Unlisted  _  (Y/N)                                             :
:          No Number _  (Y/N)                                             :
:          No Detail _  (Y/N)                                             :
:                                                                         :
:          Ext. Type _  (G/A)                                             :
:-------------------------------------------------------------------------:
: Please select a function.                                               :
:                                                                         :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:   Add :Change:Delete: Print:      :      :      :      :      : Exit    :
:       :Look  :      :      :      :      :      :      :      :         :
--------------------------------------------------------------------------
```

Figure 4-11. Extension Number Entry Screen, Enter Mode

22

```
-----------------------------------------------------------------------
: Enter Mode              Extension Number Entry          Thu Jan 1 1987 :
:                                                                        :
:                                                                        :
:    Printing record ___22                                               :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:-----------------------------------------------------------------------:
:                                                                        :
: System busy                                                            :
:                                                                        :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:        :      :      :      :      :      :      :      :      :        :
:        :      :      :      :      :      :      :      :      :        :
-----------------------------------------------------------------------
```

Figure 4-12. Extension Number Entry Screen, Enter Mode

5. OVERVIEW OF CALL COSTING AND PRICING

5.01 The cost of a call, as established by the **Lodging II** system, is the system's best estimate of what the call will actually cost the hotel; this includes the amount charged by the carrier which handled the call plus any other expenses the hotel incurs. The price of the call is the amount the hotel will charge the guest who made the call; it may be a simple markup of the cost or it may be computed quite differently from the cost. In the case of calls made by hotel staff from administrative telephones, the price of the call is not relevant, only its cost.

5.02 The **Lodging II** system provides a comprehensive call costing system to establish the cost and price of the calls that were made in the PBX. Calls can be costed in various ways based on the trunk group used, the carrier used, the number dialed, the duration of the call, etc. Costing and pricing involve five configuration tables (number analysis, local call, OCC choice, trunk group, and rate record) and also the CCMI rate tables which are ordered with the **Lodging II** system and are customized to the location of the PBX and **Lodging II** equipment.

5.03 The configurable tables are described in detail in Section 7 of this document and the rate tables are discussed in Section 6; however, before attempting to configure the **Lodging II** system to cost and price calls, the system administrator should read the following overview of costing and pricing to learn how the various tables work together to provide a powerful and flexible costing system.

5.04 The key step in costing or pricing a call is selecting the Rate ID (that is, the entry in the rate record table), which will be used. For most calls, the trunk group over which the call was made will determine the Rate ID but, in some cases, special costing and pricing methods will apply, based on the number dialed or the carrier used.

5.05 **Costing and Pricing of Calls.** As outlined in Figure 5-1, calls that need special costing or pricing can be identified in several ways. They can be separated based on the trunk group used, the OCC carrier used, or the number dialed and on whether they are outgoing or incoming calls.

1. **Outgoing Calls.** Four user-defined database tables are used by **Lodging II** to determine the correct call cost and price rating table entry that will establish the amount charged for an outgoing call.

    A. Analyze the called number for special cost or price – the called number is analyzed to determine if a special rating method should be used. Examples of such numbers would be 0+ (operator-assisted) calls and equal access calls (10xxx). If a match is identified in the number analysis table, the Rate IDs associated with the number, not those defined for the outgoing trunk group, are used to cost and price the call.

    B. Separate local calls (if no match in "A") – Often local telephone calls will be costed and priced separately from toll calls. The local call table uses the rate table data to identify local calls. The system then costs and prices local calls according to the Rate IDs defined in the local call table.

```
.---------------------------.
: PBX OUTPUTS CALL RECORD :
:---------------------------:

.---------------------------.
: NUMBER ANALYSIS TABLE     :
: DEFINES CALLS NEEDING     :
: SPECIAL COST OR PRICE     :
:===========================:
:            :COST  :
: 707+ CALLS :------:
:            :PRICE :
:------------:------:
:            :COST  :
: 011+       :------:
:            :PRICE :
:------------:------:
:            :COST  :
: ***976**** :------:
:            :PRICE :
'---------------------------'

.---------------------------.
:            :COST  :
: LOCAL CALL :------:
:            :PRICE :
'---------------------------'

.---------------------------.
: OCC TABLE IDENTIFIES      :
: CALLS USING OCCS          :
:===========================:
:            :COST  :
: SPRINT     :------:
:            :PRICE :
:------------:------:
:            :COST  :
: MCI        :------:
:            :PRICE :
'---------------------------'

.---------------------------.
: TRK GROUP TABLE DEFINES   :
: RATE IDS FOR EACH GROUP   :
:===========================:
:          :INC COST  :
:          :----------:
:          :INC PRICE :
: TG 41    :==========:
:          :OUT COST  :
:          :----------:
:          :OUT PRICE :
'---------------------------'
```

```
.----------------------------.
: CALL RATING TABLE          :
:============================:
: 1  : DDD/ATT              :
:----:----------------------:
: 2  : ATT OP ASSIST        :
:----:----------------------:
: 3  : RESERVED             :
:----:----------------------:
: 4  : INTERNATIONAL        :
:----:----------------------:
: 5  : RESERVED             :
:----:----------------------:
: 6  : RESERVED             :
:----:----------------------:
: 7  : RESERVED             :
:----:----------------------:
: 8  : ADD'L OCC 1          :
:----:----------------------:
: .  : .    .    .          :
:----:----------------------:
: .  : .    .    .          :
:----:----------------------:
: 13 : ADD'L OCC 6          :
:----:----------------------:
: 14 : FREE CALL            :
:====:======================:
: 15 : USER-DEFINED         :
:----:----------------------:
: 16 : USER-DEFINED         :
:----:----------------------:
: 17 : USER-DEFINED         :
:----:----------------------:
: .  : .    .               :
:----:----------------------:
: .  : .    .               :
:----:----------------------:
: 29 : USER-DEFINED         :
:----:----------------------:
: 30 : USER-DEFINED         :
'----------------------------'
```

Figure 5-1. Call Costing and Pricing Flow Diagram

C.   Analyze OCC number (if no match in Steps "A" or "B") – The **focus 960** provides an "OCC NUMBER" in the SMDR record that is sent to the **Lodging II** system; this number identifies which one of four possible common carriers was selected for the call by the Automatic Route Selection system in the PBX. If an entry in the OCC table matches the carrier number in the call record, the Rate IDs for the OCC table entry will be used to determine the cost and price of the call, not the Rate IDs that were defined for the outgoing trunk group.

D.   Assign circuit to trunk group – When a call is received by the **Lodging II** system, the outoing trunk number identified in the call record is associated with a trunk group. The trunk group information includes Rate IDs for cost and price that are associated with outgoing calls for that trunk. If the number analysis, local call, and OCC choice tables do not have entries that match a call, the system will cost and price the call using the outgoing Rate IDs for the trunk group.

2.   **Incoming Calls.** Only one database table is used by the **Lodging II** system in determining charges for an incoming call.

A.   Assign circuit to trunk group – When a call is received by the system, the incoming trunk number identified in the call record is associated with a trunk group. The trunk group information includes Rate IDs for cost and price that are used to define the charges for all incoming calls received by the trunk group.

6. RATE TABLES

6.01 In Section 5, the general process of costing and pricing a call was described. The key point in that process is the selection of particular Rate IDs (entries in the rate record table) which are to be used to cost and price the call. It is possible to create a complete structure for costing and pricing; typically, however, most outgoing calls will be assigned to a Rate ID which refers the costing and pricing of the call to the predefined rate tables 1-13.

6.02 The CCMI rate tables are a set of costing tables which use the dialed number, call duration, time of day, and day of the week to compute the cost of the call. They are customized to the actual location where the **Lodging II** system will be installed, with distances calculated from this point, and to the carrier or carriers used by the hotel for long distance service. The **Lodging II** system and rate tables must be ordered at the same time. Rate tables may be ordered customized to any point in the United States or Canada.

6.03 The rate tables cannot be altered or configured but, at the time they are ordered, various choices and options are available. These choices primarily affect the accuracy of costing and the cost of the tables.

6.04 When costing calls made to a particular area code (NPA), the rate tables may either cost the call using the exchange code (NXX) actually dialed, which will produce the most accurate costing, or simply cost the call by assuming it was made to an average point or "density center" (typically somewhere near the middle of the area covered by the area code), which will produce a less accurate cost but require much less detail in the rate tables. When ordering the rate tables, a decision must be made as to which area codes are to be handled in detail and which handled only with cost centers. Other selections involve the treatment of international calls, costing of calls made on different long distance carriers, etc.

6.05 Rate Table Sets. When ordering the CCMI rate tables, one of Table Sets A, B, or C must be chosen. Then Options 1-5 may be added as desired.

6.06 Table Set A – 1st NPA Detail (minimum configuration). Table Set A provides detailed pricing for all calls within the area code where the **Lodging II** system is located. Charges for calls placed within the area code are based on the distance between the local CO and the destination CO. Charges for calls outside the local area code are based on the distance from the local CO to a "density center" in the destination area code. There is one density center for each area code in the U.S. and Canada. For improved accuracy, two options can be included with this set:

1. **All NPAs Adjacent to the Home NPA.** This option provides a package deal for more accurate costing of calls to area codes that are immediately adjacent to the local area code. Detailed costing is based on the distance between the local and destination COs instead of to the density centers of adjacent area codes.

2. **Detail for Additional NPAs.** As with Option 1, the detail for additional NPAs allows you to provide more accurate costing for calls to the area codes specified.

6.07 Table Set B – All U.S. NPAs. This version provides more accurate pricing for calls outside the local area code. As explained above, the detailed pricing sets the cost of a call based on the actual destination office code as opposed to the density center within the area code. With this option, calls to Canadian area codes still use density center costing.

6.08   Table Set C - All U.S. and Canadian NPAs. This is the same as Version B except that calls to Canadian area codes are costed to the office code instead of the density center.

6.09   Options for Rate Table Sets. The following options are available for any of the table sets mentioned above:

1.   **Overseas (011, 809) Rate Detail.** With this feature, the system can price calls to other countries and those which go to Puerto Rico. If this option is not selected, international calls will not be costed and will be so indicated on the reports. (Other options can be used to provide international costing.)

2.   **Mexico NPAs (706, 903, 905) Rate Detail.** With this option, the **Lodging II** system can cost calls placed to Mexico. If this option is not included, calls placed to Mexico will not be costed and will be so indicated on the reports. (Other options can be used to provide international costing.)

3.   **Integrated Telephone List.** This feature allows the actual name of the town to be displayed in the location field on the cost control reports. If this option is not included, the field will be left blank. This feature does not provide names for calls to density centers and is not recommended for sites using Table Set A.

4.   **Non-Standard Calling Plan.** In some serving areas, call costing within the area code does not follow standard distance banding. This option compensates for the resulting inaccuracies.

5.   **Each Additional Rate Classification.** The **Lodging II** system can support CCMI rate tables for multiple toll carriers (MCI, U.S. Sprint, etc.). When these services are provided in the PBX, the **Lodging II** system must have additional rate tables as well, one for each carrier. Two toll carriers, one of which must be AT&T, are included in all table sets at no additional charge. Rate tables for additional carriers are ordered with this option. If operator-assisted rates are to be used for pricing the calls made by guests, this option should be ordered as well.

7. DETAILED DESCRIPTION OF CONFIGURATION TABLES

7.01 The configuration tables are described below in the order in which they are accessed from the System Configuration Menu, not as they should be entered into the system (see Paragraph **2.09**).

7.02 Item 1 of the configuration display calls Figure 7-1 to the screen.

7.03 **Rate Record Table.** Refer to Section 5 for an overview of the process of costing and pricing calls. The cost of a call is the **Lodging II** system's estimate of the actual cost to the hotel of the call; the price is the amount charged to the guest who made the call. The name field is used to identify the table and also to specify the type of call shown on the profit summary report.

7.04 The rate record screen (Figure 7-2) shows the fields which are available for defining a Rate ID. The rate record table (see Figure 7-3) is the primary area where parameters for costing and pricing calls are established. The table consists of 30 Rate IDs.

7.05 Using a Rate ID to cost and price a call involves two steps. These are shown in Figure 7-4 and are described in detail below.

1. **Establish Basic Call Charge.** The **Lodging II** system establishes the basic call cost using one of five methods.

    A. CCMI costing - Rate IDs numbered 1-13 always use CCMI rate tables to establish call charges; these cannot be modified by the user. However, Rate IDs 15-30 can use 1-13 to determine basic charges from the rate tables, then adjust the cost or price of a call according to user-defined criteria.

```
---------------------------------------------------------------------------
:                                                    Thu Jan 1 1987       :
:                                                                         :
:                                                                         :
:                   Costing and Pricing Configuration                     :
:                                                                         :
:                   1. Rate Records                                       :
:                   2. Number Analysis                                    :
:                   3. OCC Choices                                        :
:                   4. Local Call Table                                   :
:                   5. Named Telephone Numbers                            :
:                                                                         :
:                                                                         :
:                                                                         :
:                                                                         :
: ------------------------------------------------------------------------:
:Please enter menu selection __                                           :
:                                                                         :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:       :      :      :      :      :      :      :      :      : Exit    :
:       :      :      :      :      :      :      :      :      :         :
---------------------------------------------------------------------------
```

Figure 7-1. Costing and Pricing Configuration Menu

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```
---------------------------------------------------------------------------
: Enter mode                  Rate Record Entry          Thu Jan 1 1987    :
:                                                                          :
: Rate ID ____        Name _____    Date Modified _____      :
:                                                                          :
: CALL COSTING OR PRICING METHOD (Choose one of the following)            :
:         - Predefined Rate ID ....................  _____  (1-14)        :
:              Actual or Daytime rates ...........  __   (A or D)          :
:         - Fixed rate .......................... $ _____ /call         :
:         - Measured rate ....................... $ _____ /minute       :
:         - Variable measured rate                                         :
:              Initial rate period ..............   _____ minutes       :
:              Charge for initial rate period .... $ _____ /period      :
:              Overtime rate period .............   _____ minutes       :
:              Charge for each overtime rate period $ _____ /period       :
:                                                                          :
: RATE ADJUSTMENTS                                                         :
:         - Increase cost or price by ...........   _____ %             :
:         - Add fixed amount to cost or price .... $ _____ /call        :
:--------------------------------------------------------------------------:
: Please select a function.                                                :
:                                                                          :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
: Add    :Change:Delete: Print:      :      :      :      :      : Exit    :
:        : Look :      :      :      :      :      :      :      :         :
---------------------------------------------------------------------------
```

Figure 7-2. Rate Record Entry Screen

B. Free call (14 only) - Rate ID 14 is defined as free. Any call which is directed to 14 will show "$ 0.00" in the appropriate price or cost field. Rate IDs 15-30 can use Rate ID 14 to determine the basic charge of $ 0.00.

C. Fixed costing (15-30 only) - Fixed costing assesses each call a specific dollar amount, regardless of call duration.

D. Measured rate costing (15-30 only) - Measured costing establishes a specific rate for each minute of call duration. The system rounds the cost of the calls up to the nearest minute. The rate per minute is entered to the nearest 1/10 cent to provide the accuracy needed in some situations.

E. Initial/overtime rate costing (15-30 only) - This costing type charges calls at one rate for an initial period of time and another rate for all subsequent time periods. Time period and cost must be specified in both cases. All calls that are shorter than or equal to the initial time will be charged the initial amount. Calls that are longer than the initial period will be costed with the initial rate, then at the second rate for additional time periods. Duration and cost are rounded up to the next higher period.

2. **Cost Adjustments.** Regardless of the type of rating used for a call, the system allows the result to be modified (with the exception of Rate IDs 1-14 which cannot be adjusted).

RATE ID	DESCRIPTION	COSTING TYPE
1	AT&T DDD	REQUIRED V&H RATE TABLE
2	OPERATOR-ASSISTED	OPTIONAL RATE TABLE
3	RESERVED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4	INTERNATIONAL CALLS (011+)	OPTIONAL RATE TABLE
5	RESERVED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6	RESERVED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7	RESERVED	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
8	CARRIER 1	OPTIONAL RATE TABLE
9	CARRIER 2	OPTIONAL RATE TABLE
10	CARRIER 3	OPTIONAL RATE TABLE
11	CARRIER 4	OPTIONAL RATE TABLE
12	CARRIER 5	OPTIONAL RATE TABLE
13	CARRIER 6	OPTIONAL RATE TABLE
14	FREE CALL	FIXED VALUE OF $0.00
15	USER-DEFINED	USER-DEFINED
16	USER-DEFINED	USER-DEFINED
.	. .	. .
.	. .	. .
30	USER-DEFINED	USER-DEFINED

Figure 7-3. Rate Record Table Description

```
                    ********************
                    *  CALL IS DIRECTED *
                    *   TO RATE ID FOR  *
                    *   COST OR PRICE   *
  STEP 1            *   CALCULATIONS    *
                    ********************
                              :
        -------------------------------------------------------------
        :              :              :              :              :
   -------------  -------------  -------------  -------------  -------------
   : FIXED     :: MEASURED    :: INITIAL/OT  :: USE CCMI    :: FREE CALL  :
   :-----------::-------------::-------------::-------------::------------:
   : ESTABLISH :: ESTABLISH   :: ESTABLISH   :: ESTABLISH   :: NO CHARGE  :
   :  BASIC    ::  BASIC      ::  BASIC      ::  BASIC      ::  FOR CALL  :
   :  CHARGES  ::  CHARGES    ::  CHARGES    ::  CHARGES    ::           :
   -------------  -------------  -------------  -------------  -------------
        :              :              :              :              :
        -------------------------------------------------------------
  - - - - - - - - - - - - - - - :  - - - - - - - - - - - - - - - - - -
                              :
                    -------------------
  STEP 2            :  ADJUST CHARGE   :
                    :  BY PERCENTAGE   :
                    -------------------
                              :
                              :
                    -------------------
                    :  ADJUST CHARGE   :
                    :  BY FIXED AMOUNT :
                    -------------------
                              :
                              :
                    ********************
                    *   CALL CHARGE IS  *
                    *  NOW ESTABLISHED  *
                    ********************
```

Figure 7-4. Rate ID Flow Diagram

A.   Daytime rate adjustment – This adjustment, used when a rate table is
     selected as the costing or pricing Rate ID, will compute the cost or the
     price of a call using daytime rates instead of actual time of day rates.

B.   Adjustment percent – The result of the initial rating can be adjusted up
     or down by a specific percentage. The percent (%) amount specified will
     be added to the basic amount established above.

     EXAMPLE: A call is costed or priced at $2.00
                The adjustment percent is . . . .   X 20%
                The adjusted amount for the call is . . . $2.40

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C. Fixed adjustment - The fixed adjustment is added to the total amount for the call after the adjustment by % is determined.

EXAMPLE: A call is costed or priced at $2.00
The adjustment percent is . . . . X 20%
The adjusted amount for the call is . . . $2.40
The fixed adjustment is . . . . + $1.25
The total adjusted amount of the call is $3.65

NOTE: The rate table is made of of 30 Rate IDs, the first 14 of which have been predesignated for particular call types as shown.

NOTE: This table applies to all Rate IDs 15 through 30 for both price and cost calculations. Rate IDs 1-14 only use CCMI rate tables to establish the charge for a call and do not allow the adjustments indicated in Step 2.

7.06 Number Analysis Table. Normally calls are costed according to the trunk group over which they occurred. However, the number analysis table (Figure 7-5) identifies specific dialed telephone numbers that are to be costed in a unique way and defines which Rate IDs will be used to cost them. The table is used as follows:

1. The system searches from the first entry in the table to the last entry. The order in which entries are assigned is important.

2. Each telephone number is checked for a match with an entry in the table.

NAD ENTRY #	PATTERN BEING ANALYZED	COST RATE ID	PRICE RATE ID
1	USER-DEFINED	USER-DEFINED	USER-DEFINED
.	. .	. .	. .
.	. .	. .	. .
40	USER-DEFINED	USER-DEFINED	USER-DEFINED
41	011+	#4	#4
42	0+	#14	#14
43	0	#14	#14
44	***555****	#14	#14
45	611	#14	#14
46	911	#14	#14
47	RESERVED	---	---
.	.	.	.
50	RESERVED	---	---

Figure 7-5. Number Analysis Table

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3. If any digit does not match, the next higher entry is checked.

4. If a match is found, searching stops and the Rate IDs are assigned to the call even if there is a closer match in a later entry. If no matches are found in the number analysis table, the call is checked by the local call, OCC choice, and trunk group tables.

EXAMPLE: Dialed number 2234567

NAD#	NUMBER	RATE ID		COMMENT
		COST	PRICE	
1	408+	21	21	223 is compared to 408; no match
2	2234666	20	15	2234567 is compared to 2234666; no match
3	7352345	20	15	2234567 is compared to 7352345; no match
4	223+	21	14	223 is compared to 223; SEARCH ENDS HERE
5	2234567	27	14	Not searched, not selected
.	.	.	.	
.	.	.	.	

Information provided in the number analysis table is defined as follows:

1. **NAD Entry Number.** Number analysis data should be arranged so that the most specific numbers, that is, the numbers with the most digits to be analyzed, are assigned to the lowest entry numbers. This ensures that the specific numbers will be matched and costed properly in the system.

2. **Number Plan to be Analyzed.** This is the number to be matched for special costing or pricing. It may contain up to 16 digits or symbols. Special symbols are included to simplify configuring the system. These characters operate as follows:

   * The "*" symbol represents any digit 0-9. It is used as a place holder or as a method of counting digits to determine special routing for calls.

   + The "+" symbol can only be used at the end of a specified number. It tells the system to accept additional digits without analyzing them. If a number sequence does not end with a +, then only calls that match the number and the exact length are captured by the entry.

   EXAMPLES: 7677777   All calls that have a dialed number 7677777 will use this entry.

   712+   All calls that begin with the digits "712" and have at least 1 more digit (e.g., 712-334-1234) will use this entry.

   976*   All 10-digit calls with the office code "976" will use this entry.

3.   **Rate ID for Cost.** This field identifies the Rate ID that will be used to establish the cost of a call that matches the number pattern specified in the table entry.

4.   **Rate ID for Price.** This field identifies the Rate ID that will be used to establish the price of a call that matches the number pattern specified in the table entry.

7.07   OCC Choice Table. The **focus 960** PBX allows the system administrator to configure up to four OCCs in the alternate routing patterns. When a record is generated for a call that used one of these OCCs, the carrier number is inserted into the call record. This table is used to assign the correct Rate IDs for cost and price for the OCC number provided by the PBX. The following information is contained in the OCC choice table:

1.   **OCC Number.** This is the carrier number that is provided by the PBX.

2.   **Name.** Each OCC choice can be assigned a name to better define how the call will be costed. The name may be up to 14 characters long.

3.   **Rate ID for Cost.** This field identifies the Rate ID that will be used to establish the cost of a call that has the same carrier ID specified in this entry.

4.   **Rate ID for Price.** This field identifies the Rate ID that will be used to establish the price of a call that has the same carrier ID specified in this entry.

7.08   Local Call Table. Calls are identified as local in the CCMI rate tables and are costed or priced according to the Rate IDs entered in this table. The following information must be provided:

1.   **Rate ID for Cost.** This field identifies the Rate ID that will be used to establish the cost of a call within the local area.

2.   **Rate ID for Price.** This field identifies the Rate ID that will be used to establish the price of a call within the local area.

7.09   Named Telephone Number Table. In this table, names can be associated with commonly called numbers. When a cost control report is ordered (see **Lodging II** User Guide), the dialed number will be replaced with the associated name, making the report easier to read and interpret. This occurs only in cost control reports, not in other reports; in particular, front desk reports do not use this feature. The information to be entered into the named telephone number table is as follows:

1.   **Telephone Number (Key value).** This is the entire telephone number that is to be identified with a name. If the number may be dialed with or without a leading 1, each version must be named separately. The telephone number may be entered with or without hyphens between the groups of digits (e.g., 212-555-1212 or 2125551212). When the number is displayed in this field, it will always appear with hyphens inserted in the standard positions.

2.   **Name.** This is the description that will be shown in cost control reports in place of the called number.

7.10   Extension Configuration. The screen in Figure 7-6 will lead you to the following tables:
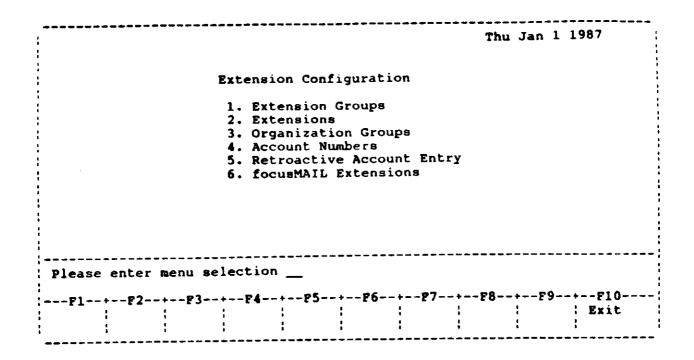
```
---------------------------------------------------------------------------
:                                                              Thu Jan 1 1987    :
:                                                                                :
:                         Extension Configuration                                :
:                                                                                :
:                  1. Extension Groups                                           :
:                  2. Extensions                                                 :
:                  3. Organization Groups                                        :
:                  4. Account Numbers                                            :
:                  5. Retroactive Account Entry                                  :
:                  6. focusMAIL Extensions                                       :
:                                                                                :
:                                                                                :
:                                                                                :
:                                                                                :
:                                                                                :
:                                                                                :
: ------------------------------------------------------------------------------ :
:  Please enter menu selection __                                                :
:                                                                                :
: ---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10---- :
:        :      :      :      :      :      :      :      :      : Exit      :
:        :      :      :      :      :      :      :      :      :           :
---------------------------------------------------------------------------
```

Figure 7-6. Extension Configuraton Menu

7.11 Extension Group Table. Extension groups are not normally used for guest room extensions. They may be used to associate administrative extensions into groups for reporting purposes. Any number of extensions can make up a group and any number of groups can be created. When an extension is being set up in the extension table, the extension group to which it belongs may be designated but the extension group must already have been defined. The extension group name is the key value and these fields may be defined:

1.   **Extension Group Name (Key).** Each extension group is given a name to be used as a reference. Up to 12 characters can be entered. Short names are desirable since, when a report is ordered by extension group, the name must be spelled exactly as it was entered in the extension group table.

2.   **Description.** The description appears in the header of reports along with the group name and is intended as an aid in identifying the group. It can be up to 30 characters long.

7.12 Extension Table. The extension table identifies individual telephone extensions in the **Lodging II** system and describes various parameters of the extensions. The extension (telephone) number is the key value. The following information is defined for each extension:

1.   **Extension Number (Key).** This is the telephone number of the extension. It can be 2, 3, or 4 digits in length, as defined in the system parameter table.

2.   **Last Name.** This field is not normally used for guest room extensions. It is the last name of the telephone user assigned to the extension. It is used for alphabetic sorting in telephone directories as well as header information in several reports.

3. **First Name.** This field is not normally used for guest room extensions. It is the first name of the telephone user assigned to the extension. It is used as header information in several reports.

4. **Location.** This field is not necessary for guest room extensions. Location information is used in telephone directories and in the headings of various cost allocation reports. Thie field is 30 characters long and can be used to describe the location of the telephone, the user's department, the type of equipment installed, etc., as required. Several of the above items can be combined in the location field by using informally defined sub-fields within the field.

5. **Extension Group.** The extension group field assigns the telephone to an extension group in the system. This field may be left blank if the extension is not a member of a group. Guest room extensions are usually not members of extension groups, though it is possible to put all these extensions in one extension group and in this way obtain relevant cost allocation reports.

6. **Fixed Cost.** This field is not normally used for guest room extensions. Each telephone can be assigned a fixed cost (e.g., a charge for the use of the telephone system, regardless of number of calls made). The value entered here will be included in the cost allocation reports for extensions, extension groups, and organization groups.

7. **Unlisted.** This option causes the extension to be omitted from telephone directories. The extension will still be included in all other reports. This field is not used for guest room extensions since they do not have names and do not appear in directories.

8. **No Number.** This option is not used for guest room extensions. It causes calls made by the extension to be displayed in a special format which replaces the last four digits of the dialed number with "XXXX". This option is used where privacy is desired but accountability for the cost of individual calls is required.

9. **No Detail.** This option is not used for guest room extensions. It causes calls made by this extension to be omitted from all detailed reports although the calls still contribute to the totals on summary reports. This option is used where security may be an issue.

10. **Extension Type.** Each extension must be designated as a Guest Room telephone (G) or an Administrative telephone (A). Only those extensions designated as "guest" will appear in the check-out, posting, and profit reports. In addition, only those so designated can be accessed from the guest room telephone status menu to change message waiting, do not disturb, wake-up, and telephone restrictions.

7.13 Organization Group Table. Organization groups are not normally used for guest room extensions. An organization group is a collection of extension groups and other organization groups. Organization groups allow up to 10 levels of the organizational structure (administrative telephones only) to be duplicated within the **Lodging II** system. This enables telephone costs to be distributed precisely within the organization.

EXAMPLE: All of the telephones in the G & A Division of a company might be set up as an organization group, containing three sub-groups: Accounting (an organization group), Executive (an organization group), and Staff (an organization group). The

Accounting group contains two sub-groups, Accounts Payable and Accounts Receivable, which are extension groups containing all the extensions of the personnel in those areas. The Executive group contains three sub-groups, Rooms Division, Sales, and Administration, which again are extension groups containing all of the extensions of the personnel in those areas. The Staff group contains only three extensions, those of the manager and his administrative staff and secretary.

7.14 When configuring an organization group, the group name is the key value and these fields may be defined:

1. **Organization Group ID (Key).** Each organization group is given a name to be used as a reference. Up to 12 characters can be entered. Short names are desirable since, when a report is ordered by organization group, the name must be spelled exactly as it was entered in the organization group table.

2. **Description.** The description appears in the header of reports along with the group name and is intended as an aid in identifying the group. A description can be up to 30 characters in length.

3. **Sub-Groups.** An organization group is a collection of up to 12 sub-groups, each of which is either an extension group or another organization group. Note that extensions cannot be added directly to an organization group; rather, they must first be assigned to an extension group and then that extension group can be added to the organization group. (This is why the Staff group was set up in the example given above.)

4. **Sub-Group Type.** Extension groups and organization groups can have the same name. Because of this, it is necessary to enter the type of group that each sub-group name represents. "E" indicates an extension group and "O" an organization group.

7.15 Account Number Table. The **focus 960** PBX can be configured to accept account numbers (or codes) as part of the dialed number for a call. These account numbers can then be used to allocate the costs of calls made by administrative telephones. If the account numbers are not defined in the system, the account number reports (see **Lodging II** User Guide) will still include the calls but the reports will be clearer if each account number is identified by a description. When all valid account numbers are defined, the system manager can easily identify calls dialed with incorrect account numbers since no description will appear for the unassigned numbers in an account number summary report. The account number is the key value and the following information is defined for each:

1. **Account Number (Key).** Account numbers can be from 1 to 15 digits long.

2. **Description.** The identifying word or phrase which will appear with the account number in account number reports may be up to 18 characters in length.

7.16 Retroactive Account Code Entry Table. Account codes for calls already stored in the system can be added or changed when the correct extension number is entered on this table. The program allows the user to page through the extension's calls to find the record(s) that must be updated.

7.17   focusMail Extension Table. If the **Lodging II** system is attached to a PBX which also has a **focusMail** voice messaging system, the PBX extensions used by the **focusMail** system should be entered into this table in the **Lodging II** system. In this way, when the **focusMail** system makes an outgoing call on behalf of a user extension (to deliver messages stored for that extension), the **Lodging II** system will charge the call correctly to the user extension rather than to the **focusMail** extension. Each PBX extension connected to the **focusMail** system should be entered into one of the fields on the screen.

7.18   Trunk Configuration. Figure 7-7 will lead you to the following tables:

7.19   Trunk Group Table. Trunk groups in the **Lodging II** system normally correspond to the trunk groups defined in the PBX. In the trunk group table, each trunk group is defined and named and Rate IDs are established that will be used to calculate the cost and price for both incoming and outgoing calls made on the trunk group. It is also possible to define a unique assumed answer time for the trunk group if the normal assumed answer time, defined in the system parameter table, is not appropriate for the trunk group. The trunk group is the key value and the following information is defined:

1.   **Trunk Group (Key).** The trunk group numbers in the **Lodging II** system usually correspond to the trunk groups that are defined in the PBX but this is not mandatory. (It is mandatory, however, that trunk circuit numbers between the PBX and **Lodging II** system correspond since it is the PBX trunk circuit number that is passed to the **Lodging II** system in the call record.)

2.   **Name.** The name can be used to describe the trunk group's function or destination. This name is printed in the trunk reports to make them easier to read.
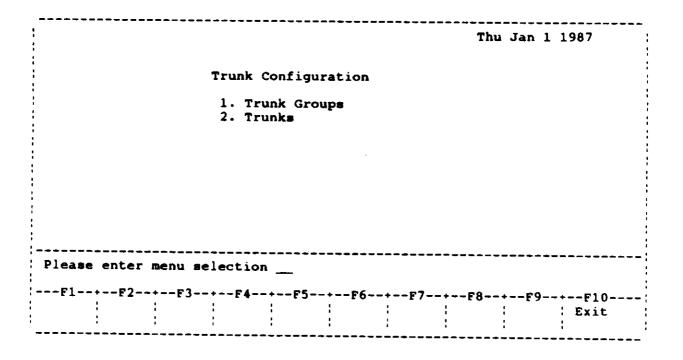
```
--------------------------------------------------------------------
:                                                 Thu Jan 1 1987    :
:                                                                   :
:                  Trunk Configuration                              :
:                                                                   :
:                     1. Trunk Groups                               :
:                     2. Trunks                                     :
:                                                                   :
:                                                                   :
:                                                                   :
:                                                                   :
:                                                                   :
:                                                                   :
:                                                                   :
:  ---------------------------------------------------------------  :
:  Please enter menu selection __                                   :
:                                                                   :
: ---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----:
:        :      :      :      :      :      :      :      :      : Exit  :
:        :      :      :      :      :      :      :      :      :       :
 --------------------------------------------------------------------
```

Figure 7-7. Trunk Configuration Menu

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3.	**Answer Time.**	The charge for an outgoing call, as billed by the local telephone company or long distance carrier, does not start until the called party answers. Most central office trunks do not indicate to the PBX when this answer occurs; therefore, in order to cost the call correctly, the **Lodging II** system assumes that the called party has answered after a certain period of time and then starts to charge for the call. This period is known as the assumed answer time. In the system parameter table (see Paragraph **7.21**), an assumed answer time is defined which applies to calls on all trunk groups unless a unique assumed answer time for a particular trunk group is defined here. If this field is left blank, the answer time from the system parameter table is used. If a call has a duration less than the assumed answer time, it is assumed that the called party did not answer and the call record is discarded. The assumed answer time is entered in minutes, e.g., 30 seconds is entered as 0.5.

The PBX also has an assumed answer time parameter which it subtracts from the call duration before creating a call record to send to the **Lodging II** system; a call record is not produced by the PBX if the call duration was less than the PBX's assumed answer time. Hence, for the assumed answer times in the **Lodging II** system parameter and trunk group values to be effective, the PBX answer time parameter must be set to some small value (0 to 5 seconds) which is less than the values in the system parameter and trunk group tables.

4.	**Incoming Cost Rate.**	This field defines which Rate ID will be used to establish the cost for incoming calls on this trunk group.

5.	**Incoming Price Rate.**	This field defines which Rate ID will be used to establish the price for incoming calls on this trunk group.

6.	**Outgoing Cost Rate.**	This field defines which Rate ID will be used to establish the cost for outgoing calls on this trunk group.

7.	**Outgoing Price Rate.**	This field defines which Rate ID will be used to establish the price for outgoing calls on this trunk group.

**7.20	Trunk Table.**	Each trunk circuit in the PBX must be defined in the **Lodging II** system so that calls on it may be identified; then it must be assigned to the correct trunk group so that the calls can be costed accurately. The trunk number is the key value and the following information is defined for each trunk:

1.	**Trunk Number (Key).**	A trunk is identified to the **Lodging II** system in the format "HH.LL" if the PBX is a single-node **focus 960** or "M.HH.LL" if the PBX is a multi-node **focus 960.** "M" is the node number. "HH" is the two-digit highway number for the trunk circuit in the PBX and "LL" is the level number of the trunk circuit in the PBX. (The "." between the highway and level number is optional when entering the trunk circuit number but will appear whenever the trunk number is displayed or printed in reports.) "M" is a digit between 1 and 9 that identifies the node number of a multi-node PBX.

EXAMPLE:	08.05	= Highway 08, Level 05, in a single-node PBX.
208.05	= Node 2, Highway 08, Level 05, in a
multi-node PBX.

2.	**Trunk Group.**	Each trunk must be associated with a trunk group to define how calls using that trunk circuit will be costed.

7.21   System Parameter Table.   The system parameter table defines certain basic information necessary for the operation of the **Lodging II** system. This table is accessed directly from the System Configuration Menu, without any sub-menu. Unlike most of the configuration tables, it does not use a key value. If any values are changed in the system parameter table during a configuration session, the **Lodging II** system must be shutdown and restarted for the changes to take effect. The following information is defined in the system parameter table:

1.   **Company Name.**   The company name field is used to help define the database when a backup or database listing is generated. The name may be 30 characters in length.

2.   **Minimum Duration.**   This field establishes a minimum call-duration threshold. Calls with a duration shorter than this threshold will not be included in reports. The default setting (zero) causes all calls to be displayed in the reports.

3.   **Minimum Cost.**   This field establishes a minimum-cost threshold. Calls costing less than this threshold will not be included in reports. The threshold is initially set at zero which causes all calls to be included in the reports.

4.   **Minimum Price.**   This field establishes a minimum call-price threshold. Calls with a price less than this threshold will not be included in the billing reports. This threshold affects only those reports which include the price of calls. The threshold is initially set at zero which causes all calls to be included in the billing reports.

5.   **Answer Time.**   The charge for an outgoing call, as billed by the local telephone company or long distance carrier, does not start until the called party answers. Most central office trunks do not indicate to the PBX when this answer occurs; therefore, in order to cost the call correctly, the **Lodging II** system assumes that the called party has answered after a certain period of time and then starts to charge for the call. This period is known as the assumed answer time. It is defined here in the system parameter table and applies to calls on all trunk groups unless a unique assumed answer time is defined for a particular trunk group in the trunk group table. If a call has a duration less than the assumed answer time, it is assumed that the called party did not answer and the call record is discarded.

The assumed answer time is entered in minutes, e.g., 30 seconds is entered as 0.5.

The PBX also has an assumed answer time parameter which it subracts from the call duration before creating a call record to send to the **Lodging II** system; a call record is not produced by the PBX if the call duration was less than the PBX's assumed answer time. Hence, for the assumed answer times in the system parameter and trunk group tables to be effective, the PBX answer time parameter must be set to some small value (0 to 5 seconds) which is less than the values in the system parameter and trunk group tables.

6.   **External Buffer.**   If an external buffer is installed between the **Lodging II** system and the PBX, to collect call records while the **Lodging II** system is unavailable, this fact must be defined in the **Lodging II** system so that the proper flow control signals are sent to the buffer.

7.   **Price Calls.**   This field controls whether calls should be priced as well as costed. In a hotel or motel system, it should always be set to Yes.

8. **Extension Length.** All extension numbers entered into the extension table (see Paragraph 7.11) must have the same number of digits. The number, typically 3 or 4, must be defined in this field.

7.22 Password Table. The password table defines the authorized users of the **Lodging II** system, their passwords, and their security levels. This table is accessed directly from the System Configuration Menu, without any sub-menu. The user name is the key value and the following information is designed for each user:

1. **User Name (Key).** This is a name or word that will be entered at the "User Name" prompt on the log-in screen. It may be from 1 to 16 characters (A-Z, 0-9, "-", and "."). To log-in to the **Lodging II** system, the user must enter a user name that is in the password table.

2. **Password.** At the "Password" prompt on the log-in screen, the user may enter the password associated with that name. This option provides an additional level of security to help prevent unauthorized access to the **Lodging II** system. The password may be from 1 to 8 characters (A-Z, 0-9, "-", and "."). If a password is not desired for a particular user name, this field should be left blank; after entering the user name at the log-in screen, the user need only press **ENTER** at the **"Password"** prompt.

3. **Security.** Associated with each user name is a security level. The security level defines the menu items available to the user (i.e., which features of the **Lodging II** system he may use). There are three security levels.

   A. Level 1 allows access to:

      All **focus 960** SMDA reports (Main Menu item 1) and report batches (Main Menu item 4)
      Checkout reports, guest name entry, and guest room telephone status (on the Front Desk Operations Menu)

   B. Level 2 allows access to:

      All Level 1 features
      Extension, and trunk configuration
      Posting and profit reports
      Change status of R.T.O. (real time output)

   C. Level 3 allows unlimited access to:

      All Level 1 and 2 features
      Costing and pricing and lodging configuration
      System parameters
      Password configuration
      System functions

7.23 Lodging Table. This table contains items that are specific to the hotel/motel environment. It is accessed directly from the System Configuration Menu, without any sub-menu. Unlike most of the configuration tables, it does not use a key value. If any values are changed in the lodging table during a configuration session, the **Lodging II** system must be shutdown and restarted for the changes to take effect. The following information is defined in the lodging table:

1. **Is the PBX equipped with a Voice Messaging System?** The details of the operation of the room status feature depend on whether the PBX is equipped with a **focusMail** voice messaging system. (See the **Lodging II** User Manual for feature operation of room status.) If Brooktrout cards are installed and voice prompts are desired for room status, enter Y.

2. **Is the AP equipped with a PMS Backup Printer?** In a **Lodging II** system equipped with a property management system (PMS), call records are sent to the backup printer when the PMS link is down. Room status is printed out on this printer when it is not accepted by the PMS. Failed wakeup attempts are also printed out. While call records are being sent to the backup printer, failed wakeup attempts and room status information will not be available.

3. **Enter Voice Port Extension Numbers.** These are the extension numbers of the two voice cards (installed in the **Lodging II** system) which will handle the room status telephone calls. These extension numbers are the actual PBX extensions connected to the cards.

4. **Enter Room Status Security Code.** To prevent unauthorized users from entering false room status information, the system may be configured to require entry of a security code before entry of room status. The security code defined in this field may consist of any three digits that can be dialed on a tone telephone (including the * and # keys). If a security code is not required, this field should be left blank.

5. **Do you require Output Of Priced Calls?** After a call is completed, the PBX sends a call record to the **Lodging II** system which computes a cost and a price for the call. The system may then output the priced call record to a printer or a PMS. (The output of priced calls is sometimes referred to as "real time output".) If the priced calls are to be sent to a PMS or printer, the response to this query should be Y (Yes) and the next question must be answered. If the **Lodging II** system is not attached to a PMS or to a printer for priced calls (this is not the same printer as is used for reports), this question should be answered with N (No) and the next two questions can be ignored.

   NOTE: The "N" response completely turns off the output of priced calls; this differs from the option "Change Status of Real Time Output" on the Front Desk Operations Menu which merely postpones the output temporarily.

6. **Where do you want to send the PRICED CALLS?**
   0 = SEND TO A PMS, 1 = SEND TO A PRINTER
   The answer here determines the format in which the priced calls are sent. If the question is answered with 0 (PMS), the next question can be ignored; the priced calls are sent to the PMS in standard HOBIC format. If the response is 1 (printer), the next question must be answered.

7. **Print Format for Priced Calls (3 or 66 calls per page):** If each call record will be torn off the printer separately and put in the guest's folio, formatting three calls per page allows enough paper for easy tear-off. If the printout of priced calls is used as an ongoing record of all telephone calls, then one line per call (66 calls per page) is the economical format.

8. SYSTEM FUNCTIONS

8.01 Selecting item 3 on the Main Menu calls up the System Function Menu, Figure 8-1.

8.02 Call Record Collection Functions. Option 1 on the System Function Menu leads to Figure 8-2:

1&2. **Immediate Call Record Printout.** For diagnostic purposes (during installation of the \Lodging II system, for example), it is possible to print out each call record on the **Lodging II** report printer as it is received from the PBX. Printing is turned on and off using the Start and Stop options on this menu. This feature is not required for normal operation of the **Lodging II** system and should only be used on instruction from Fujitsu Business Communications personnel. When this feature is activated, the printer cannot be used for any other reports.

3. **Purge Call Record Database.** The **Lodging II** system stores each call record on hard disk, even after the record has been sent to the PMS. Stored call records are used to produce reports such as the Telephone Profit Report. The system can store hundreds of thousands of call records but eventually it will become full. At this point, the **Lodging II** system will automatically determine the earliest date for which there are call records stored and purge (delete) all records of calls made on that date. A warning is received at 85% full and purging begins at 95%.

8.03 A manual purge is also possible (e.g., to clear away a month of call records), once any necessary reports based on those call records have been produced. Selecting the Purge option on the menu leads to Figure 8-3:

8.04 Initially, both the starting and ending dates are set to the earliest date for which there are call records stored in the **Lodging II** system. These dates should be changed to indicate the time period within which call records are to be purged. Pressing F2 will restore the original dates. Once the desired dates have been entered, pressing F1 will cause the purge to take effect.

```
------------------------------------------------------------------------
:                                                    Thu Jan 1 1987      :
:                                                                        :
:                                                                        :
:                       System Function Menu                             :
:                                                                        :
:                       1. Call Record Collection Functions              :
:                       2. Shut Down System                              :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:                                                                        :
:------------------------------------------------------------------------:
: Please enter menu selection __                                         :
:                                                                        :
:---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F1u----:
:       :      :      :      :      :      :      :      :      : Exit   :
:       :      :      :      :      :      :      :      :      :        :
------------------------------------------------------------------------
```

Figure 8-1. System Function Menu

47

```
--------------------------------------------------------------------
|                                              Thu Jan 1 1987      |
|                                                                 |
|                                                                 |
|          Call Record Collection Functions Menu                  |
|                                                                 |
|          1. Start immediate call record printout               |
|          2. Stop immediate call record printout                |
|          3. Purge call record database                         |
|                                                                 |
|                                                                 |
|                                                                 |
|                                                                 |
|                                                                 |
|                                                                 |
|-----------------------------------------------------------------|
| Please enter menu selection __                                  |
|---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----|
|       :      :      :      :      :      :      :      :   : Exit       |
|       :      :      :      :      :      :      :      :   :            |
--------------------------------------------------------------------
```

Figure 8-2. Call Record Functions

```
--------------------------------------------------------------------
|                                              Thu Jan 1 1987      |
|                                                                 |
|                                                                 |
|               CALL RECORD FILE PURGE                            |
|                                                                 |
|               Starting Date:                                    |
|                 Ending Date:                                    |
|                                                                 |
|                                                                 |
|                                                                 |
|                                                                 |
|                                                                 |
|                                                                 |
|-----------------------------------------------------------------|
| Please select a function.                                       |
|---F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10----|
| Comp- : Start:      :      :      :      :      :      :   : Exit       |
|  lete :  over:      :      :      :      :      :      :   :            |
--------------------------------------------------------------------
```
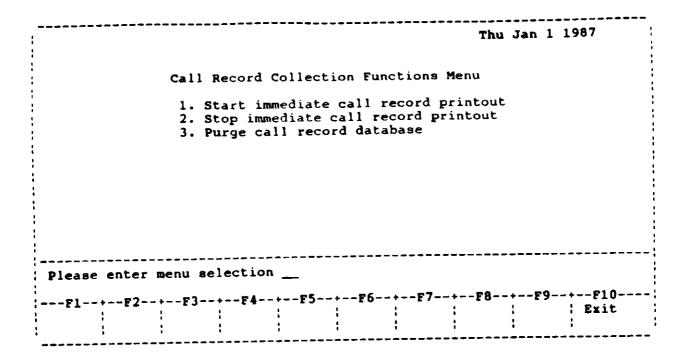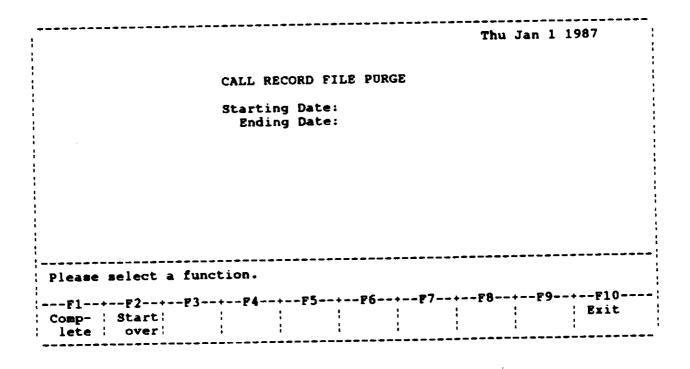
Figure 8-3. Call Record Purge Screen

NOTE: Once call records have been purged they are not available for any reports, but reports containing those call records can be stored on hard or floppy disk prior to being purged. See Section 9.

8.05 System Shutdown Functions. The **Lodging II** system may be shut down to perform normal system maintenance, to back up and restore data files, or to use the computer to run other programs. It must also be shut down and restarted after some configuration sessions, to allow the new configuration information to take effect, and after the PBX date or time has been changed, to allow the system to synchronize with the PBX. The shutdown procedure can only be performed by a person who logged in to the system with a security level of 3.

8.06 It is important that the system be shut down using the menu options provided rather than simply switching off the power to the computer. The menu-controlled shutdown procedures (Figure 8-4) allow the system to complete the processing of call records already received, store these call records on disk, and signal the external call record buffer, if present, to start collecting call records.

8.07 When either of the shutdown operations is selected, the **Lodging II** system will display certain warnings and ask if you wish to continue the shutdown process. These warnings are necessary because, while it is shut down, the **Lodging II** system will not accept any call records from the PBX. During this period, either PBX call activity must be halted or there must be an external buffer to collect call records (or the loss of some call records must be accepted). If these conditions cannot be met, enter N and press **ENTER**; the shutdown process will be aborted.

1. **Shutdown and Exit to Operating System.** Select item 1 from the Shutdown Menu. Check the warning screen. If the conditions are acceptable, type Y and press **ENTER.** Wait for the message **"In process of shutting down Lodging II system"** to disappear. At this point, a new message appears:

    To restart Lodging II, press Ctrl-Alt-Del.

```
------------------------------------------------------------------------------
;                                                          Wed Apr 29 1987   ;
;                                                                            ;
;                         System Shutdown Menu                               ;
;                                                                            ;
;                                                                            ;
;           1. Shut Down and Exit to Operating System                        ;
;           2. Shut Down for Backup/Restore of Database                      ;
;                                                                            ;
;                                                                            ;
;                                                                            ;
;  ------------------------------------------------------------------------  ;
;  Please enter menu selection __                                            ;
;--F1--+--F2--+--F3--+--F4--+--F5--+--F6--+--F7--+--F8--+--F9--+--F10--;
;      ;      ;      ;      ;      ;      ;      ;      ;      ; Exit  ;
------------------------------------------------------------------------------
```
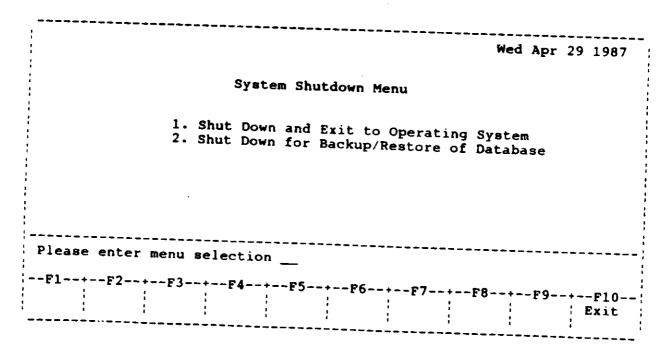
Figure 8-4. System Shutdown Menu

Following this instruction reboots the system and redisplays the log-in screen. If you must run PC-DOS programs on the computer, make certain you follow the shutdown instructions first. Put a PC-DOS disk into drive A and press the **CTRL, ALT,** and **DEL** keys at the same time. The computer will start up from the PC-DOS disk and will not load the **Lodging II** software. At this point, normal PC-DOS programs may be run on the computer. Be aware that the disk space available on drive C (the hard disk) is only a small fraction of the total disk space. This is the result of the partitioning of the system between **Lodging II** and other uses. Any attempt to change the disk partition sizes may cause the **Lodging II** system to malfunction.

2.   **Shutdown for Backup/Restore of Database.** Select item 2 from the Shutdown Menu. Check the warning screen. If the conditions are acceptable, type Y and press **ENTER.** Wait for the message **"In process of shutting down Lodging II system"** to disappear. At this point, a new screen displays two options:

A.   **Backup Current Database.** This selection allows you to copy all system configuration data from the computer's hard disk to a floppy disk (use high-density diskettes). The screen will tell you to insert a blank formatted* disk into drive A and strike any key when ready. The following message appears when the backup is complete:

        Please remove the disk from drive A and
        press CTRL-ALT-DEL to restart LODGING II.

        If errors occurred, repeat backup procedure.

        Label the disk and store it in a cool, dry place.

        * Follow the instructions in your PC-DOS manual to format disks properly.

B.   **Restore Previous Database.** This selection allows you to copy all the data on the backup disk to the computer's hard disk. The screen will tell you to insert the disk in drive A and strike any key when ready. The following message appears when the database is restored:

        Please remove the disk from drive A and
        press CTRL-ALT-DEL to restart LODGING II.

        If errors occurred, repeat restore procedure.

        Store the backup disk in a cool, dry place.

8.08   As an alternative to the CTRL-ALT-DEL restart procedure, remove any disk from drive A and turn off the computer power switch and then, after a few seconds, on again. The **Lodging II** program will load and start, then present the log-in screen.

8.09   If the PBX is operating, any calls stored in an external call buffer while the **Lodging II** system was shut down will be processed as soon as the system is up and running. They will be processed in the same order that they were received from the PBX.

9. CALL REPORT STORAGE

9.01 All administrative and front desk operations reports can be printed out or saved on the computer's hard disk or on properly formatted floppy disks for future reference. This may be desirable before the call records reflected in the reports are purged (Paragraph 8.01).

9.02 Select the report to be saved and the method of output from the report screen. If the output is to a file (disk), the procedure is as follows.

9.03 Output to File. When the output is to a file, the prompt line changes to **"Please enter report output file name: "** Up to 8 alphanumeric characters can be entered. Drive A is the default if no drive is specified. If a drive other than A is desired, "C: " or "D: " must be entered.

> **NOTE:** If the file name entered has already been used on the specified drive, there will be an error message and the user will be asked if he wants the old file to be overwritten. This means that any data previously saved will be lost. If the user does not want the old information overwritten, he must enter a new file name.

9.04 Once the **ENTER** key is pressed and the entry is validated, the prompt line reads, **"Make sure drive A: is ready. Press ENTER when ready."**

9.05 Insert a formatted diskette into floppy drive A before pressing the **ENTER** key. The screen changes to the same display as appears when a report is being printed. A prompt is not provided if the C: or D: drive is designated. All file names will use a .PRO as an extension. (ERROR condition – If a file extension is specified or a file name is in error, an error message will be displayed: **"Illegal file name. Only alphanumeric is allowed."**)