Model TQ3346 V2

ERICSSON

Mobile Communications
PC Programming

MTD™ EDACS Mobile Radio

For
IBM PC/XT
Or True PC Compatible

Programming Guide

PERSONAL COMPUTER PROGRAMMING

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INTRODUCTION

Ericsson GE Mobile Communications, Inc. welcomes you to the world of mobile communications. We believe there is no equal to our products and have made a commitment to our customers to ensure that product satisfaction and reliable service is our number one priority.

Quality built and dependable, the MTD EDACS radio is designed with your specific radio needs in mind. We believe you will find an unparalleled level of user friendliness and programmable ease.

This manual is organized to support you in programming the MTD EDACS radio and will cover:

- the steps necessary to install the program,
- the procedures to actually program the personality,
- answers to some of your questions.

If you are a technician experienced in programming radios or a first time radio programmer, this manual has been written to give you a clear and concise understanding of the MTD EDACS radio.

CHAPTER 1
BEFORE YOU BEGIN

ABOUT THIS MANUAL

Specifically, this manual is designed to present you with all the necessary information required to connect the MTD EDACS radio to the computer and run the programming software.

Chapter 1 - provides you with some basic information you will need to know prior to running the software. It explains how to use the work sheets, keyboard layout, commonly used terms, and screen/window functionality.

Chapter 2 - contains a list of the contents of this package and instructions for installing the MTD EDACS radio software.

Chapter 3 - is a short tutorial that will lead you through the basic operation of the MTD EDACS Radio PC Programmer. If you are not familiar with programming procedures it is recommended that you take the time to complete the tutorial.

Chapter 4 - will instruct you in the creation of a MTD EDACS radio personality. The purpose of each screen/window is discussed in detail as well as what is required so that your radio will operate the way you want it to.

Chapter 5 - gives you file management information such as changing directories, changing file extensions, and deleting files.

Chapter 6 - is devoted to problem solving. It identifies the error messages that you will encounter and provides solutions and alternatives.

Appendices - The Appendices follow Chapter 6 and contain the following reference materials:

A. Terms - Definitions of frequently used words.

B. Function Keys - A listing of what function keys you will run across and a definition of what function they will perform.

C. Acceptable Values - The range of values the PC Programmer will accept for a specific field.

D. Primary & Equivalent Digital Codes - A table indicating usable Digital Channel Guard codes.

E. Channel Guard Tone Frequencies - A table indicating standard EIA Channel Guard tone frequencies.

F. Channel Entry - Provides a listing of TX FCC Channel numbers in conjunction with Transmit Frequency frequencies.

G. Work Sheets - Prepared forms to assist you in organizing your thoughts prior to entering the data in the program.

Screen diagrams are used throughout this manual to help clarify section discussions. Each item being discussed is denoted by a number for easy identification.

Please pay particular attention to NOTES as they contain pertinent information that you should be aware of.

IMPORTANT TERMS

Default Value - The MTD EDACS radio software provides predetermined (default) values in a majority of the data entry fields within the program. Exceptions to this rule are fields requiring variable names, dates, and serial numbers. The default values assume that the radio will be used without optional features. Before changing these default values, we recommend that you be familiar with the operational implications of adding a particular feature or option to the radio being programmed.

Error Messages - Each time data is entered in the program a validity check is made to ensure that reasonable values were entered. In the event that the data does not fall within the acceptable range of values, an error message will be displayed in the center of the screen indicating non acceptance.

Field - Refers to the area of the screen/window which allows data entry. This area is readily identifiable by a reverse video bar when moving the cursor across the screen.

Help - Throughout the MTD EDACS radio software, Help denotes or refers to on-line assistance. This can be accessed by pressing the **F9 Help** or **Shift-F9 Help** key from any field.

Personality - Used generically to refer to information that is stored in the radio that makes one radio perform differently from all other radios. That information can be created, deleted or modified and stored on a disk for later reference.

Prompt Line - Assistance text located on the last line of the window. This line provides directions for entering data and changes when moving from field to field.

HOW TO USE WORK SHEETS

Work sheets can be found in Appendix G. They are pre-printed forms to assist you in organizing personality information prior to going to the computer. You are encouraged to make copies of these work sheets and fill them in before programming begins. Doing so can prevent costly and time consuming mistakes and can be used for future reference. Empty blocks in the work sheets are provided for you to fill in the desired values. Blocks with information already typed in represent toggle fields in the program where the appropriate response should be circled.

Maximum Number of Agencies - Work Sheet A in the Work Sheet folder. This work sheet will assist you in determining the number of fleets for each agency identified. There are 32 possible agencies. The information in these fields will affect all radios having agency partition data within a particular personality.

Trunked Frequency Sets - Work Sheet B in the Work Sheet folder. This work sheet will assist you in defining trunked frequency sets for the data base. The trunked frequency set describes the repeater channels for the system.

Trunked Set Options - Work Sheet C in the Work Sheet folder. This work sheet will assist you in defining options associated with a trunked frequency set.

Conventional Frequency Sets - Work Sheet D in the Work Sheet folder. This work sheet will assist you in defining the conventional frequency sets for the data base.

Conventional Set Options - Work Sheet E in the Work Sheet folder. This work sheet will assist you in defining options associated with a conventional frequency set.

Group Sets - Work Sheet F in the Work Sheet folder. This work sheet will assist you in defining the group set definitions for the data base. A group set identifies each conversation group for a system and the options available to each group.

Group Set Options - Work Sheet G in the Work Sheet folder. This work sheet will assist you in defining options associated with the group set.

Special Call Sets - Work Sheet H in the Work Sheet folder. This work sheet will assist you in defining the special call set definitions for the data base. A special call set identifies the display name, call type, and number.

Keypad Limit Options - Work Sheet I in the Work Sheet folder. This work sheet will assist you in defining options associated with the special call set.

Radio Personalities - Work Sheet J in the Work Sheet folder. This work sheet will assist you in defining the radio personality.

Mobile Radio Options - Work Sheet K in the Work Sheet folder. This work sheet will assist you in defining the options associated with MTD EDACS mobile radios.

Menu Options - Work Sheet L in the Work Sheet folder. This work sheet will assist you in defining menu options available for MTD EDACS mobile radios.

Initial Settings - Work Sheet M in the Work Sheet folder. This work sheet presents initial radio state options available for MTD EDACS mobile radios.

Radio Parameters - Work Sheet N in the Work Sheet folder. This work sheet presents radio parameter options available for MTD EDACS mobile radios.

User Control Options - Work Sheet O in the Work Sheet folder. This work sheet will assist you in selecting radio alert tones and audio options associated MTD EDACS mobile radios.

Scan Options - Work Sheet P in the Work Sheet folder. This work sheet presents scan options available for MTD EDACS mobile radios.

Desk Top Options - Work Sheet Q in the Work Sheet folder. This work sheet presents desk top options available MTD EDACS mobile radios.

Status Options - Work Sheet R in the Work Sheet folder. This work sheet allows you to define status keypad data associated with the MTD EDACS mobile radio.

Message Options - Work Sheet S in the Work Sheet folder. This work sheet allows you to define message keypad data associated with the MTD EDACS mobile radio.

Wide Area Scan - Work Sheet T in the Work Sheet folder. This work sheet will assist you in defining the systems to be used in wide area scan.

HOW SCREENS WORK

Each screen is divided into three areas: (1) screen title, (2) screen windows, and (3) active function keys. The title tells you where you are in the program hierarchy. Screen windows provide for input of data to the screen. Active function keys provide access to commands (or actions) available within that screen. The function key commands are labeled along the bottom of the screen. Only the function keys with labels are enabled in a given screen or window.

A window is a section of a screen that displays previously stored information, enables programming alternatives, or accepts data currently being entered. There may be more than one window within a particular screen. Each window is outlined within the screen presentation.

There are two types of windows: active and passive. The active window is available for data entry or revision and can be identified by its highlighted borders. The passive window is displayed but is unavailable for program execution. In the case that windows have overlapping borders, the active window is presented in the foreground.

Like the screen, windows are divided into three distinct sections. They are: (1) window title, (2) work area, and (3) prompt line. The window title describes the function currently being performed. The work area is the space provided for your input to the window. The prompt line is printed information in the lower portion of the window defining in further detail action to be taken in the work area.

This program uses a series of presentation screens to guide you easily through the programming of a radio. There are five major categories of data entry screens:

- Current Personalities Screen
- Radio Personality Screen
- Currently Defined Frequency Sets Screen
- Currently Defined Group Sets Screen
- Currently Defined Special Call Sets Screen

Current Personalities Screen - The Current Personalities Screen lists the file names of all stored radio personalities presently maintained in this special directory. From this screen you can create a new personality (file) or make changes to existing personalities. You then have the option of initiating one of the actions indicated by the function keys at the bottom of the screen.

Radio Personality Screen - Data defining the radio personality is entered into the Radio Personality Screen which can be accessed from the Current Personalities Screen by pressing **F2 Change** or **F4 New**. Within this screen you can define the operational characteristics of the unit. This includes Name, Frequency Set, Site, Unit, Group Set, and Special Call Set.

Currently Defined Frequency Sets Screen - This screen shows the currently defined frequency sets residing in the data base. Immediately below the title is the directory in which the currently defined frequency sets reside. This directory is referred to as the Pool directory. From this screen you can create, edit or delete a frequency set.

Currently Defined Group Sets Screen - This screen shows the currently defined group sets residing in the data base. Immediately below the title is the directory in which the currently defined group sets reside. This directory is referred to as the Pool directory. From this screen you can create, edit or delete a groupset.

Currently Defined Special Call Sets Screen - This screen shows the currently defined special call sets residing in the data base. Immediately below the title is the directory in which the currently defined special call sets reside. This directory is referred to as the Pool directory. From this screen you can create, edit or delete a special call set.

SCREEN/WINDOW LAYOUT

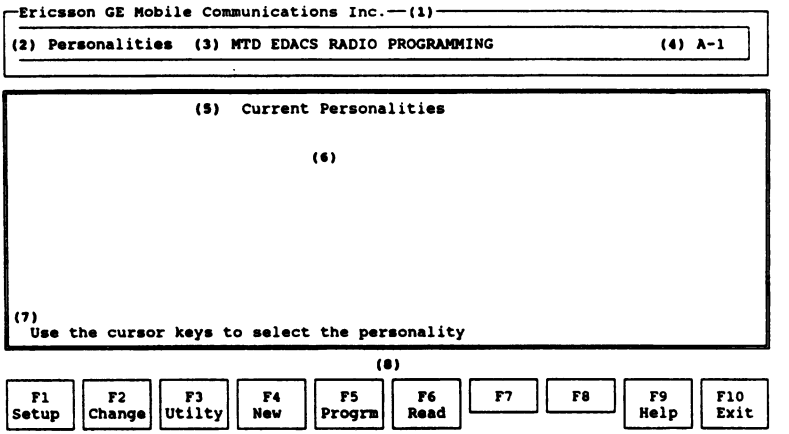


Figure 1-1 - Screen/Window Layout

(1) Division - indicates Ericsson GE manufacturing
(2) Function - indicates current function
(3) Product Title - identifies product
(4) Level Indicator - screen/window location in software
(5) Title - screen/window title
(6) Work Area - screen/window field area
(7) Prompt Line - current field instruction line
(8) Function Keys - supplies programming options

All screens and windows will have some basic fields that are consistent throughout this document. The overall layout will be the same as shown in Figure 1-1.

Division (1) The **Ericsson GE Mobile Communications, Inc. Division** field indicates the MTD EDACS radio manufacturer.

This is a "Display Only" field which is always displayed at the top of the screen.

Function (2) The **Function** field is used to indicate which programming function is active.

This is a "Display Only" field which indicates the particular programming function of a screen/window.

Product Title (3) The **Product Title** field is used to specify the product name and will identify which radio the programmer is intended to be used with.

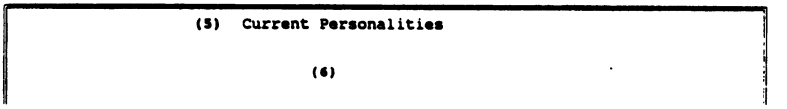
This is a "Display Only" field which is always displayed in the screen title.

Level Indicator (4) The **Level Indicator** field is used to indicate the screen/window location in the program.

This is a "Display Only" field used to indicate the particular window level in the program.

Window Title (5) The **Window Title** field is used to indicate the title of a particular screen/window.

This is a "Display Only" field consistently displayed at the top of each window. This field will vary to indicate which window is being displayed.



Work Area

(6) The **Work Area** is the area of a screen or window where input fields are defined. Each window is unique in its available fields and each of these fields are identified in the window descriptions.

Entry to these fields will be determined by the purpose and content of each window. In most windows you can move between fields by using the arrowed cursor keys, **Home** and **End** keys, **TAB** and **<enter>** keys. Within a field you can use the arrowed cursor keys, space bar, **Delete** and alphanumeric keyboard keys. Sometimes, the field will be toggle only where the **TAB** key is the only active key in the field and the **<enter>** key will move you between fields. Usually, normal cursor progression is left to right, top to bottom.

NOTE

Throughout this document, the terms screen and window are used interchangeably.

Prompt Line

(7) The **Prompt Line** field is used to instruct you in field definition for specific fields.

This is a "Display Only" field, displayed at the bottom of a window. As you move from field to field, the prompt line will direct you for input in the particular field.

Function Keys (8) The **Function Keys** are is used to provide access to other options pertaining to the screen/window currently being displayed.

Pressing the desired function key will cause the program to perform the indicated function for that particular key. Following each window definition is a brief description of the operational function keys.

Occasionally, a screen or window will have subordinate windows that perform functions relating to them. These windows will be smaller in size and are referred to as "pop-up windows". Figure 1-2 illustrates a "pop-up" window overlaying a main screen. The highlighted border identifies the "pop-up" window as being active and all data entry/acceptance occurs within this window. Pressing **F10 Back** will always return you to the original window.

Please notice that the "pop-up" window is smaller in size than the regular window. The overall layout is still the same with the title at the top center of the screen and the prompt line at the bottom of the screen (when appropriate). The active function keys will continue to be listed below the window. When the "pop-up" window requests an action that will change the data base on disk, a continue prompt will appear requesting selection of a function key option.

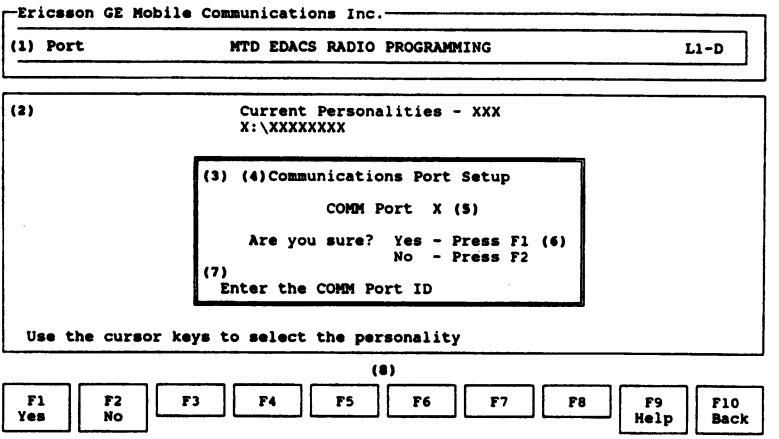


Figure 1-2 - "Pop-Up" Window

(1) Function - indicates current function
(2) Main Screen - indicates the main screen
(3) "Pop-up" Window - indicates pop-up window
(4) Title - window title
(5) Work Area - area for specific field(s)
(6) Continue Prompt - continue or abort option
(7) Prompt Line - current field instruction line
(8) Function Keys - supplies programming options

Main Screen/Window (2) The **Main Screen/Window** is shown as a backdrop to the preceding "pop-up" window.

To enter this screen, you must press the appropriate function key(s).

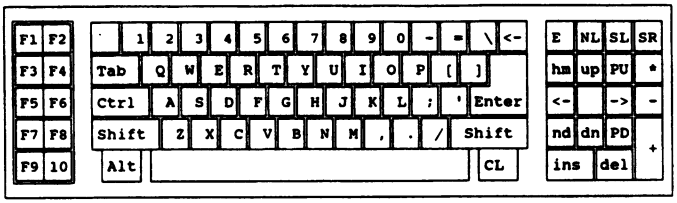
"Pop-up" Window (3) The **"Pop-Up" Window** is shown as the front window. This window is laid out the in the same manner as the main window. The title is displayed at the top, fields are in the center and where appropriate, the prompt line is displayed in the lower left corner.

Access is granted in this window as it is active.

Continue Prompt (6) The **Continue Prompt** field is used to indicate whether or not you want to continue with the selected field selection.

By pressing **F1 Yes**, the field selection will be confirmed and the programmer will continue with the operation selected. Selecting **F2 No** indicates that the operation should not be performed and will return you to the previous window.

USING THE KEYBOARD



It is important that you be familiar with the keyboard of your computer system. Each keyboard is different in relation to the placement of some of the keys. In the PC Programming Software package there are categories of operational keys:

- Function
- Character
- Editing
- Movement
- Special Usage

The following sections give an overview of which keys are included in these categories and their functions. However, in some screens, such as the Current Personalities Screen, only the use of cursor keys is allowed because selection operation is all that is needed.

Function Keys

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10

OR:

F1	F2
F3	F4
F5	F6
F7	F8
F9	F10

The purpose of a particular function key is dependent upon the screen or window that is currently highlighted at any given point in the program. In other words, a function key may be labeled differently from one screen or window to the next. Be sure that you you fully understand the purpose for any function key prior to pressing it.

The command or action associated with a particular function key is labeled on the lower portion of your screen. There are two types of function keys: Inactive and Active.

Inactive function keys have no operational capabilities during execution of a given screen and are not labeled on the screen.

Active function keys, on the other hand, are labeled. By pressing a specific function, the software executes the action delegated to that particular key.

The function keys are alphanumerically labeled F1 - F10. These keys will perform specific functions, depending upon which screen/window they appear in. The following Function Key Table represents their functionality in the MTD EDACS Radio Programming Software.

FUNCTION KEY TABLE

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
A	Setup	Change	Utilty	New	Progrm	Read			Help	Exit
B	Switch	Freq	Group	SpCall					Help	Back
C		Change	NewTrk	NewCnv	Delete				Help	Back
D				FCC/TX	Store		Option		Help	Back
E		Insert	Remove		Store		Option		Help	Back
F		Change	New		Delete				Help	Back
G		Insert	Remove		Store		Option		Help	Back
H	Port	Envron	Dir		Delete	Print	Ext		Help	Back
I	Detail	Insert	Remove		Progrm		Mobile	More	Help	Back
J	Detail	Freq	Group	Text		SpCall	SysScn	More	Help	Back
K	Menu	Inital	Param	User	Scan	Desk		More	Help	Back
L	Agency		Stat	MSG				More	Help	Back
M	Print								Help	Back
N	Yes	No							Help	Back
O									Help	Back

A. Current Personalities Screen

B. Agency Partition Data Window, Frequency Range Window

C. Currently Defined Frequency Sets Window

D. Trunked Frequency Set Window

E. Conventional Frequency Set Screen

F. Currently Defined Group Sets Screen, Currently Defined Special Call Sets Screen

G. Group Set Summary Window, Special Call Set Window

H. Current Personalities (Utility) Window

I. Radio Personality Screen

J. Radio Personality "More" Screen

K. Mobile Radio Options Window

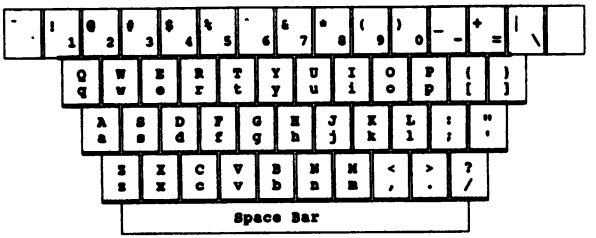
L. Mobile Radio Options "More" Window

M. Print Personality Window

N. Change/Edit File, Delete File, Store File, Save File, Program Radio, Read Radio, Communications Port Setup, Change Directory, Change Extension

O. Trunked Set Options, Conventional Set Options, Keypad Limit Options, Change Environment Setting, Menu Options, Initial Settings, Radio Parameters, User Control Options, Scan Options, Desk Top Options, Status Keypad Definitions, Message Keypad Definitions, Wide Area Scan

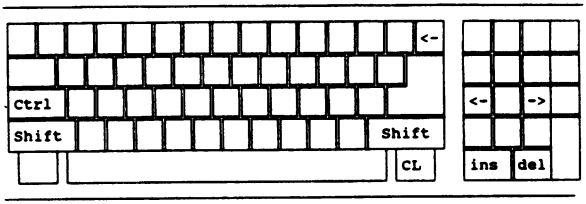
Character Keys



Character keys are used to enter data into a field. When pressed, the software inserts that character in the field position designated by the cursor and then advances to the next available character position. Character keys for the purposes of this PC Programming Software package are:

- Alphabetic: (a - z) and (A - Z)
- Numeric: (0 - 9)
- Special Characters ~ ` ' " , . ? ! ; : @ # $ % ^ & * | - + = < > { } [ ] ( ) \ /
- Space Bar

Editing Keys



Editing keys manipulate the data within a field. These keys are:

Left and Right Arrows: Each time one of these arrows is pressed it moves the cursor one character to the left or right until the left or right most position is reached.

Backspace: As the cursor moves to the left the character immediately to the left of the cursor is deleted.

Insert: This key toggles the insert operation on and off. The insert operation enables you to insert a character or a string of characters without overwriting any previously entered information.

Delete: This key enables you to delete a character or a string of characters.

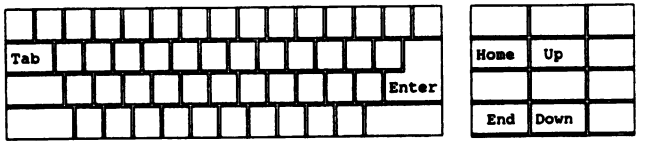
Shift/Caps Lock: Enabled, the Shift and Caps Lock key writes all alphabetic characters in capitalized letters.

Control/Left Arrow: When both keys are simultaneously pressed, the cursor is moved to the left most character in the field.

Control/Right Arrow: When both keys are simultaneously pressed, the cursor is moved to the right most character in the field.

Control Backspace: By simultaneously pressing both keys all characters to the left of the cursor are deleted and then all characters opposing the deletion are moved right or left to fill the space.

Movement Keys



These keys enable the movement or cursor positioning on the screen. They are also used to indicate an end of input in the current field.

<enter>: The data entered into the present field is accepted and the cursor is advanced to the next field.

Up Arrow: The data entered into the present field is accepted and the cursor is returned to the previous field.

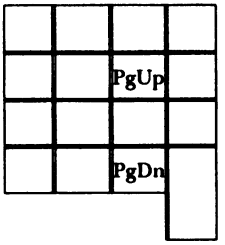
Down Arrow: The data entered into the present field is accepted and the cursor is advanced to the next field.

Home: Moves the cursor to the first field in the window.

End: Moves the cursor to the final field in the window.

TAB: Toggles a predetermined field between selections such as a Yes or No response. May also move the cursor into the next field.

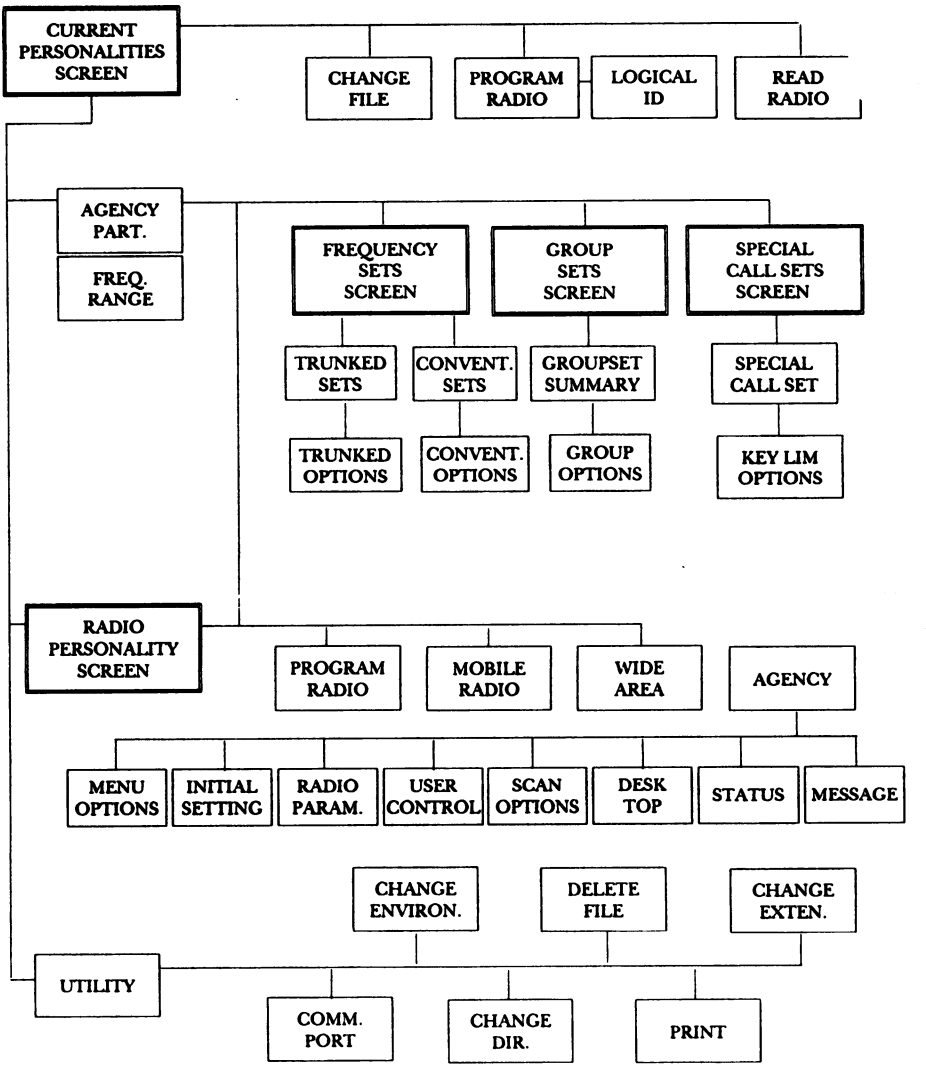
Special Usage Keys



Two keys are represented in this category:

Page Up (**Pg Up**): This key will advance you to the previous page in the Current Personalities Screen, in the Currently Defined Frequency Sets, Group Sets, and Special Call Sets Screens. Also in the Radio Personality Screen, the screen will advance one page at a time until the beginning page is key is also used in a similar manner in the Help Windows.

Page Down (**Pg Dn**): This key will advance you to the following page in the Current Personalities Screen, in the Currently Defined Frequency Sets, Group Sets, and Special Call Sets Screens. Also in the Radio Personality Screen, the screen will advance one page at a time until the last page is reached. This key is also used in a similar manner in the Help Windows.



MTD EDACS Radio PC Programming Flow Chart

CHAPTER 2
INSTALLATION

UNPACKING

Upon unpacking this package you should be sure you have received the following:

- Radio Programming Software (TQ-3346), to include:
  Three double-sided, double-density 5-1/4 inch diskettes, (labeled "Program Disk #1, #2 and #3").
  Or, two 3-1/2 inch diskettes, (labeled "Program Disk #1 and #2").

PC PROGRAMMING SOFTWARE REQUIREMENTS

The following hardware and software is required to program the MTD EDACS radio:

A. IBM PC/XT/AT or any true compatible with MS-DOS version 3.0 or later, and having the following minimum configuration:

   1. Two Disk Drives, either dual flexible (floppy) or a single floppy with a fixed (hard) disk drive system.

   2. 640K Internal RAM.

   3. Serial Port.

   4. Parallel Port (recommended) for connection of a printer.

B. Serial Programming Interface Module (TQ-3310) and RS-232 Cable (19B235027P1).

C. Radio Programming Cable (TQ-3354).

D. MTD EDACS (TQ-3346) Radio Programming Software.

E. Printer (optional, but recommended).

DISKETTE HANDLING

While working with your diskettes you may want to consider the following handling procedures:

- Always store your diskettes in their envelope.
- Insert diskettes into the drive carefully.
- Use only felt tipped pens to write on diskette labels.
- Store your diskettes at a comfortable room temperature.
- Refrain from touching the recording surface.
- Do not bend the diskettes.
- Do not allow any form of liquid to come in contact with the diskette surface.
- Keep diskettes away from magnetic force fields as found in electronic equipment.

If you follow these simple guidelines you will receive long service from your diskettes.

MAKING BACKUPS

The PC Programming Software is provided to you on three double-sided double-density 5-1/4 inch diskettes, labeled "Program Disk #1" through "Program Disk #3". Two 3-1/2 inch diskettes are also provided. These diskettes are very sensitive and fragile and, therefore, should be handled with care and stored in a secure area.

We recommend that, upon receipt of your diskettes, you copy the original PC Programming Software diskettes to other diskettes or a fixed disk and store the originals in a safe place. This ensures the availability of an accurate program should a copy fail during program applications. The copy you have made for your daily programming tasks will be referred to in this manual as the "working copy".

NOTE

It is important to use the Diskcopy command when making backups and not the Copy or Xcopy command. Each diskette contains a volume label that is required for the installation process. Copy and Xcopy do not copy volume labels so please refrain from using these commands.

SYSTEM HOOK-UP

Connect all peripheral equipment to your computer prior to configuring the PC Programming Software items. Remember to refer to the operating manuals of each device for correct installation procedures.

If your system is already established, check to see that you have all the equipment necessary to execute the program. Isolate all cables connecting computer to devices to prevent tangling, interference and damage.

Step One:

Refer to the appropriate system hook up figure and then look at your computer to locate a serial port. This port will usually be located at the rear of the computer. However, since this is dependent upon the design of your computer refer to the computer operator's manual for directions.

The IBM PC/XT/AT systems support up to two serial ports. There are two physical standards for the serial port configurations of personal computers. The most common is the 25 pin RS-232 output that has a DB-25 male connector at the computer. The other standard is a DB-9 male connector at the computer (used on the IBM-AT and many portable lap-top computers). The PC Interface Module, like most data communications equipment, uses a standard RS-232, DB-25, female connector. If your computer uses a DB-9 connector, you will need to purchase a DB-9/DB-25 interface cable from your local computer dealer.

Please note at this point that the MTD EDACS Radio PC Programming Software only communicates with the radio and its interface on the serial port designated as COM1 or COM2. Your computer references will assist you in determining which serial port has been so designated. Once located, examine the keyed plug on the RS-232 cable for the correct keyed end and insert it carefully into the appropriate serial port on the computer.

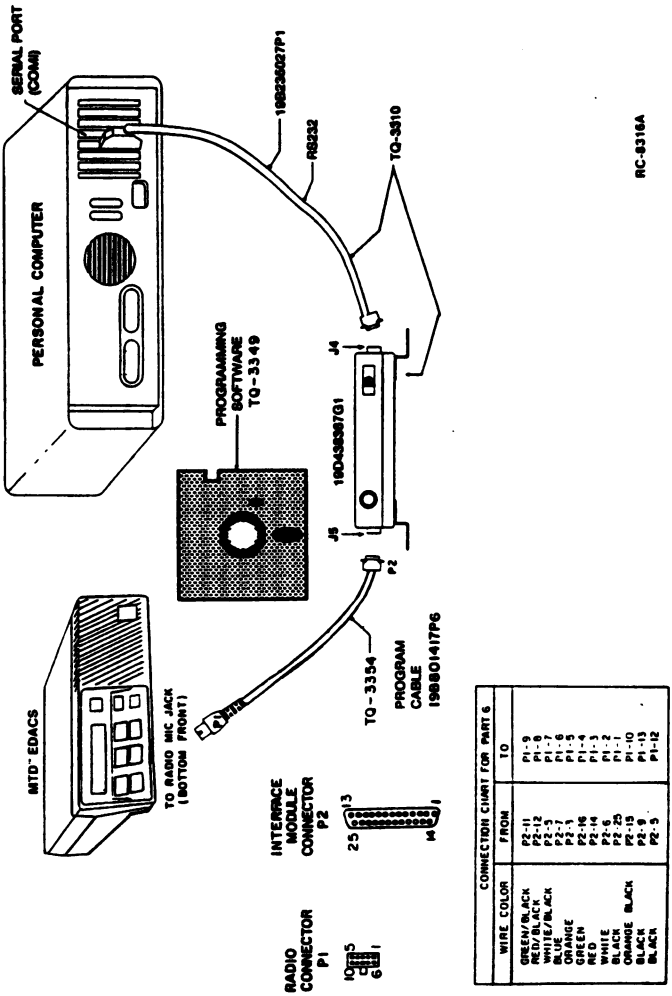


Figure 2-1 - Programming System Hook-Up

The other end of the RS-232 cable should now be connected into the computer receptacle on the PC Interface Module. Check carefully to ensure that plugs are fully seated in the receptacle and, if retaining screws are included, that they are carefully tightened to firmly hold the plug in place. Should the plug not seat correctly to its receptacle, remove the plug and examine the pins to determine if the proper plug was inserted and to determine if pins are aligned and undamaged. Damaged pins and broken connections will cause the PC Programming Software to fail.

Step Two:

Position your MTD EDACS radio on your work area in a convenient place. In order to program the unit, you must connect the radio to a DC power supply. Ensure that power is applied to the radio prior to attempting programming.

Connect the PC Programming Cable as depicted in Figure 2-1. The programming cable is inserted into the receptacle on the bottom of the unit. Again you should ensure that the plug is fully seated in its receptacle. The microphone connector must be removed before connecting the cable.

Loading The Software

The PC software can be installed on a fixed drive or run from floppy diskettes in a dual floppy drive configuration.

Software Installation

This section is for hard drive users only. If dual floppies are being used, skip this section and go on to "Program Entry".

5-1/4 Inch Diskettes:

When using 5-1/4 inch diskettes, the software installation is initiated by inserting the Program Diskette in floppy drive A: and typing the following:

INSTALL <enter>

3-1/2 Inch Diskette:

When using the 3-1/2 inch diskette, the software installation is initiated by inserting the Program Disk in drive A: and typing the following:

INSTALL <enter>

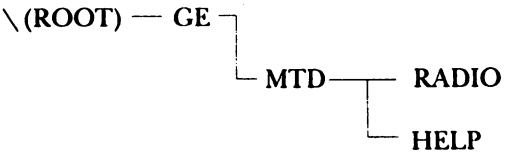
An Installation Screen will appear prompting you for the correct drive letter. The target drive is used to indicate which disk drive the program will be loaded to. (It must be a hard drive.) Press **F1 Begin**. This will cause the program to copy the files from the distribution diskette to your hard drive.

During the install routine, the program will prompt you to remove the first disk and insert the second, the third, etc.

Program Entry

To help you manage your PC Programming Software, Ericsson GE has created a directory structure, or filing system, for your programs. This filing system is created whenever any PC Programming Software is installed on your hard disk and also applies to floppy disk users.

When the MTD EDACS Radio PC Programming Software is installed, a directory structure consisting of four subdirectories is created. This structure is represented graphically as follows:



The first directory created is the GE directory; the main directory under which all PC programming software will be stored. This directory will contain a batch file that is used to invoke the MTD software. From the GE directory, the MTD directory is created. This directory stores the channel data created during program operation and all of the executable programs.

The PC Programming Software is distributed with a number of help files that reside in the Help directory and are used by the program whenever the **F9 Help** or **Shift-F9 Help** key is pressed. These files are only required to support the on-line help facility and may be removed if on-line help is no longer required. The final directory created is the Radio directory. The purpose of this directory is to hold the personalities created during program operation.

Directories can be used very effectively in organizing your programming personalities. It is highly recommended that you familiarize yourself with directories. Refer to your DOS Users Manual for more information.

Once you have completed the installation procedure, the following steps may be taken to access the MTD EDACS Radio PC Programming Software:

Hard Disk:

To ensure that the current drive is the drive entered as the target drive during installation, type

C: <enter> (The drive indicated here should be the letter of the drive specified as the target drive during program installation.)

To ensure that the current path is the GE Programming directory, type

cd GE <enter>

To load the MTD EDACS PC Programming Software into memory, type

MTD <enter>

After a brief introductory screen appears identifying the program, the Current Personalities Screen will appear.

Dual Floppy:

5-1/4 Inch

When the MTD EDACS PC Programming Software is used in a dual floppy configured computer

1. Insert the DOS disk in drive A and turn on or "boot up" or turn on the computer.

2. Place a blank formatted disk in drive B.

> **NOTE**
>
> The formatted disk in Drive B will become your data disk where you will store the personality information and data for the radio.

3. Replace the DOS disk in Drive A with the PC Programming Software disk labeled "Program Disk #1".

4. At the prompt, type:

   A: <enter>
   cd GE <enter>
   MTD <enter>

   This will run the batch file which executes the main program and switches the current directory to Drive B to store and edit the personality files.

5. When the program comes up, insert Program Disk #2 into Drive A to allow access to the read, write and print programs.

6. When Helps are desired, remove Program Disk #2 and insert Program Disk #3 into Drive A. Replace Program Disk #2 when Helps are not needed.

> **NOTE**
>
> Always place Program Disk #1 in Drive A when exiting the program.

3-1/2 Inch

1. Insert the DOS disk in Drive A and "boot up" or turn on the computer.

2. Place a formatted diskette in Drive B.

> **NOTE**
>
> The formatted disk in Drive B will become your data disk on which you will store the personality information and data for your radio.

3. Replace DOS disk in Drive A with PC Programming Software disk labeled Program Disk #1.

4. At the prompt, type:

   A: <enter>
   cd GE <enter>
   MTD

   This will run the batch file which executes the main program and switches the current directory to Drive B to store and edit the user's personalities.

5. When the program comes up, insert Program Disk #2 into Drive A to permit access to the read, write, print and help files.

> **NOTE**
>
> Always place Program Disk #1 in Drive A when exiting the program.

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CHAPTER 3
GETTING STARTED

The following brief tutorial is designed to give you an understanding of how the program operates and to also give you some hands on experience before you begin actual programming. You are encouraged to explore the program and view all screens and windows during this tutorial. On-line assistance is available at any in this program by pressing **F9 Help**. This key enables a help message for the field you are in.

Before you begin this tutorial refer to your hardware set up and be sure the radio is set up according to installation procedures in Chapter 2. Once installation is completed, follow the Program Entry steps for Hard Disk or Dual Floppy. After you have typed "MTD" and pressed **<enter>**, the Current Personalities Screen will appear. You are now ready to begin this tutorial.

When programming a radio, it is advised that you first fill out the necessary work sheets (located in Appendix G of this manual). These work sheets will assist you while you are programming the radio and serve as reference material should questions arise during radio operation. Work sheets for this tutorial have already been filled out and precede the window you will be working in. To become better acquainted with work sheets and window layout, reference the work sheets as you complete the tutorial.

From the Current Personalities Screen, press **F1 Setup**.

This will take you into the Agency Partition Data Window. Before any personality can be created the number of agencies and fleets per agency must be defined. Because a portion of the personality has already been created for this tutorial, it is not necessary to define the agency partition data.

Press **F1 Switch** in the Agency Partition Data Window.

This brings you into the Frequency Range Window where band split selection can be made. The reverse video bar should be highlighting the 800 split.

Press **F2 Freq**.

This will bring you into the Currently Defined Frequency Sets Screen. This screen identifies the frequency sets that have been created. These sets are then used to create a radio personality. This tutorial has already created two frequency sets: TRUNK and CONVENT.

Position your cursor on the TRUNK field and select **F2 Change**.

A window will appear showing TRUNK as the file to be edited.

Select **F1 Yes**.

Work Sheet B - Trunked Frequency Sets

Set Name: TRUNK

CH NO.	TRANS FREQ.	RECEIVE FREQ.	FCC CHAN TRANS. FREQ.	CH NO.	TRANS FREQ.	RECEIVE FREQ.	FCC CHAN TRANS. FREQ.
01	806.0125	851.0125		14			
02	823.0000	868.0000		15			

Your work sheet indicates that the transmit frequency set for Channel 1 should be "806.0125". However, the window shows the field is "807.0250".

Position your cursor in the Tx Freq field for Channel 1. Press **Ctrl-Backspace** to clear the field. Type **806.0125**. Press **<enter>**.

Notice that the Rx Freq field is automatically changed at 45 MHz greater than the entered transmit frequency.

Channel 2 settings are correct according to the work sheet.

Select **F10 Back**.

The Save File Window will appear indicating TRUNK as the frequency set to be saved.

Select **F1 Yes** to save the change.

A prompt will inform you that this file already exists allowing you to overwrite the file or go back into the Save File Window to select another name.

You want to overwrite the existing file, press **Y**.

This returns you to the Currently Defined Frequency Sets Screen.

Position your cursor over CONVENT and select **F2 Change**.

A window will appear showing CONVENT as the file to be edited.

Select **F1 Yes**.

Work Sheet D - Conventional Frequency Sets
Sheet 1

Set Name: **CONVENT**

CH NO	CHANNEL NAME	TRANSMIT FREQ.	RECEIVE FREQ.	TRANS. CG	STE
1	CHAN-1	808.2500	853.2500	88.5	(On) Off
2	CHAN-2	815.0000	864.2500	100.0	(On) Off

Sheet 2

CHAN. NO	RECEIVE CG	TRANSMIT LOCKOUT	CARRIER CONTROL TIMER	OSCILLATOR SHIFT	SCAN	PORT POWER
1	91.5	On (Off)	(On) Off	Yes (No)	(On) Off	Low (Hi)
2	123.0	On (Off)	On (Off)	Yes (No)	(On) Off	(Low) Hi

In Channel 1, CHAN-1, the Scan field is set to "Off". Your work sheet indicates it should be set to "On".

> Use the **<enter>** key to advance to the Scan field. Using the **TAB** key as a toggle switch, select **On**.

Also in Channel 1, CHAN-1, the Port PWR field is defined as "Low". Your work sheet indicates the selection should be "Hi".

> Press **<enter>** to go into the Port PWR field. Using the **TAB** key as a toggle switch, select **Hi**. Press **<enter>** to advance to the next channel.

In Channel 2, CHAN-2, the work sheet designates the receive frequency to be set at "864.2500". When the TX Freq frequency was entered at "815.0000" the RX Freq field automatically defaulted to "860.0000" (45 Mhz greater than the Tx Freq field).

> Press **<enter>** to go into the RX Freq. Press **Ctrl-Backspace** to clear the field. Type **864.2500**.

Once these changes have been made you will want to save them and return to the Currently Defined Frequency Sets Screen.

> Select **F10 Back**.

The Save File Window will appear indicating CONVENT as the frequency set to be saved.

Select **F1 Yes** to save the change. You want to overwrite the existing file, press **Y**.

Now that frequency sets have been defined and saved to disk you should define group sets.

Press **F10 Back** to exit the Currently Defined Frequency Sets Screen and return to the Agency Partition Data and Frequency Range Windows. Select **F3 Group**.

The Currently Defined Group Sets Screen will appear. It looks very similar to the Currently Defined Frequency Sets Screen and indicates the group sets that have been defined and saved.

Position your cursor over the GROUPS file and select **F2 Change**.

A window will appear showing GROUPS as the file to be edited.

Select **F1 Yes**.

The Group Set Summary Window will appear.

Work Sheet F - Group Sets

GROUP SET NAME: **GROUPS**

GROUP	GROUP NAME	GROUP ID NUMBER	TYPE	SCAN	KNOB SELECT	ICALL
1	HENDERSN	119	Normal (Encode) Decode	(On) Off	On (Off)	(On) Off
2	PARKER	127	Normal Encode (Decode)	On (Off)	On (Off)	(On) Off

In Group 1, HENDERSN, the ICall field is set to "Off". Your work sheet indicates the ICall field should be set to "On".

Press **<enter>** to advance to the ICall field. Using the **TAB** key as a toggle switch, select **On.**

In Group 2, PARKER, the Type field is defined as "Encode" while the work sheet indicates it should be set to "Decode".

Cursor into the Type field in Group 2. Use the **TAB** key to toggle, and select **Decode.**

Now that these changes have been made, you are ready to save them and return to the Currently Defined Group Sets Screen.

Select **F10 Back.**

The Save File Window will appear indicating GROUPS as the group set to be saved.

Select **F1 Yes** to save the change. You want to overwrite the existing file, press **Y.**

The group sets have been defined and saved to disk. You are almost ready to begin programming the radio personality, but first you must define special call sets.

Press **F10 Back** to exit the Currently Defined Group Sets Screen and return to the Agency Partition Data and Frequency Range Windows. Select **F4 SpCall.**

The Currently Defined Special Call Sets Screen will appear. It also looks very similar to the Currently Defined Frequency Sets Screen and indicates the special call sets that have been defined and saved.

Position your cursor over the SPECIAL file and select **F2 Change.** A window will appear showing SPECIAL as the file to be edited. Select **F1 Yes** and the Special Call Set Window will appear.

Work Sheet H - Special Call Sets

SPECIAL CALL SET NAME: **SPECIAL**

CALL	NAME	TYPE	KNOB SELECT	NUMBER
1	BRAXTON	TELE (CAL1) DTMF ALL	ON (OFF)	130
2	MANLEY	TELE CAL1 DTMF (ALL)	ON (OFF)	

In Call 1, BRAXTON, the Type field is set to "DTMF". Your work sheet indicates this field should be set to "CAL1".

Press **<enter>** to advance to the Type field. Using the **TAB** key as a toggle switch, select **CAL1**.

Because "DTMF" had been selected in the Type field in the Special Call Set Window, no number was entered in the Number field.

Press **<enter>** to advance into the Number field. Type **130**.

In Call 2, MANLEY, all fields are set according to the work sheet.

Now that the Special Call Set Window has been defined according to the work sheet, you are ready to save them and continue on into the Radio Personality Screen where you can define the personality.

Select **F10 Back**.

The Save File Window will appear indicating SPECIAL as the special call set to be saved.

Select **F1 Yes** to save the changes. You want to overwrite the existing file, press **Y**.

Press **F10 Back** to exit the Currently Defined Special Call Sets Screen.

Press **F10 Back** again to return to the Current Personalities Screen.

Select **F4 New** and the Radio Personalities Screen will appear.

Work Sheet J - Radio Personalities
Sheet 1

PERSONALITY NAME: **PERS1**

SYSTEM NUMBER (1-48)	SYSTEM DISPLAY NAME	FREQ. SET	TYPE (T/C)	SITE ID (1-32)	UNIT NUMBER (1-16382)
1	SAMPLE1	TRUNK	(T) C	3	2080
2	SAMPLE2	CONVENT	T (C)		

Work Sheet J - Radio Personalities
Sheet 2

PERSONALITY NAME: **PERS1**

SYS NO. (1-48)	GROUP SET	SPECIAL CALL SET	EMERGENCY EMERG AUDIO (On/Off)	EMERGENCY DISPLAY (On/Off)	COL TIME
1	GROUPS	SPECIAL	(On) Off	(On) Off	2
2			On Off	On Off	

Once the Radio Personality work sheets have been filled out, you can define the Radio Personality Screen. The first field to define is the name field. This field specifies the display name for the system when the unit has this system selected.

Type **SAMPLE1** and press **<enter>**.

The frequency set you want to use in this system is the frequency set you created earlier in the Trunked Frequency Set Window.

Type **TRUNK** and press **<enter>**.

The programmer will pull in the trunked frequency set specified and indicate which frequency set you selected by automatically placing a "T" in the Type field. The Site ID field indicates the site identification of the system with a trunked frequency set.

Type **3** in the Site ID field and press **<enter>**.

The Unit ID field specifies the logical identification of this unit while on this system.

Type **2080** in the Unit ID field and press **<enter>**.

The group set you want to use in this system is the group set you created earlier in the Group Set Summary Window.

Type **GROUPS** and press **<enter>**.

The special call set you want to use in this system is the special call set you created earlier in the Special Call Set Summary Window.

Type **SPECIAL** and press **<enter>**.

The Emg Aud and Emg Dsp fields are to be set to "On" but automatically default to "Off".

Using the **TAB** key as a toggle switch, select **On** in the Emg Aud field and press **<enter>**. In the Emg Dsp field, toggle the field to **On** also and press **<enter>**.

The Failsoft field indicates which channel the unit will tune to if the system falls into conventional failsoft. This field is to be left blank to disable the conventional failsoft operation.

Move your cursor to the System 2, Name field. Type **SAMPLE2** and press **<enter>**. In the Freq Set field type **CONVENT** and press **<enter>**.

System 2 will be defined using a conventional frequency set. The programmer will pull in the conventional frequency set specified and indicate to you which frequency set you selected by automatically placing a "C" in the Type field. When defining a system using a conventional frequency set it is not necessary to define all the fields in the Radio Personality Screen.

You have now completed program input for the radio personality. Your window should look like the one shown in Figure 3-1, PERS1.

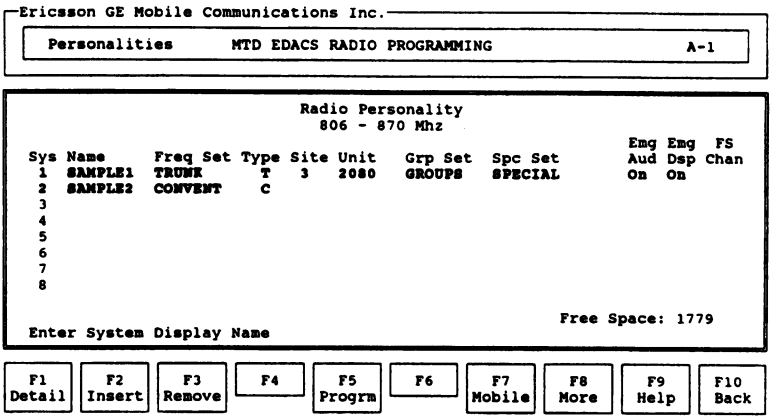

Figure 3-1 - PERS1

Press **F10 Back**.

The Save File Window will appear. This window is where you name the personality and save it to disk.

Type **PERS1**. Select **F1 Yes**.

The new personality name will appear in the Current Personalities Screen.

The next step is to program the personality into the radio.

NOTE

Do not attempt the next sequence without ensuring that the Serial Programming Interface Module is properly connected. Failure to attach the Serial Programming Interface Module prior to a program or read operation may result in system lock-up. Should this occur, refer to Chapter 6 of this manual.

Select **F5 Progrm** and the Program Radio Window will appear.

The highlighted personality in the Current Personalities Screen will appear in the Selected Filename field.

If the name in the Selected Filename field is different than PERS1, press **Ctrl-Backspace** to clear the field. Type **PERS1**. Select **F1 Yes**.

A message will appear on the screen indicating that the personality is being downloaded into the radio. The program operation is finished when the program window disappears from the screen.

You can also read the personality of the radio if you like.

Select **F6 Read** and type **PERS2**. Press **F1 Yes**.

The program will then handshake with the radio and read the personality out of the radio into the file PERS2. When the operation is finished the windows will disappear and the Current Personalities Screen will reappear showing the newly created personality PERS2.

You have now completed the tutorial. You can delete the personalities if you like or keep them in your program for future reference.

To delete a personality move cursor to the personality you want deleted. Select **F3 Utilty**, press **F5 Delete**, press **F1 Yes** and type **Y**.

The selected personality will be deleted from the disk and will no longer appear in the Current Personalities Screen.

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CHAPTER 4
RUNNING THE PROGRAM

INITIALIZATION

Depending on its manufacturer, your personal computer will have certain unique operating characteristics which make it different from other computers of similar capability. For example, file names and file extensions must conform to the requirements of your disk operating system. We, therefore, recommend that you become fully conversant with your computer's disk operating system and its operating manual prior to beginning this program.

When you turn on your personal computer, it begins an initialization routine which every system must go through to prepare for operation. During the initialization of your system, the MS-DOS program is loaded into memory. Remember that MS-DOS is the interpreter between your keyboard actions and the capabilities of the PC Programming Software.

Once the PC is initialized and you have received the DOS prompt, you should type:

cd GE <enter>

MTD <enter>

After a brief introductory screen the Current Personalities Screen will appear.

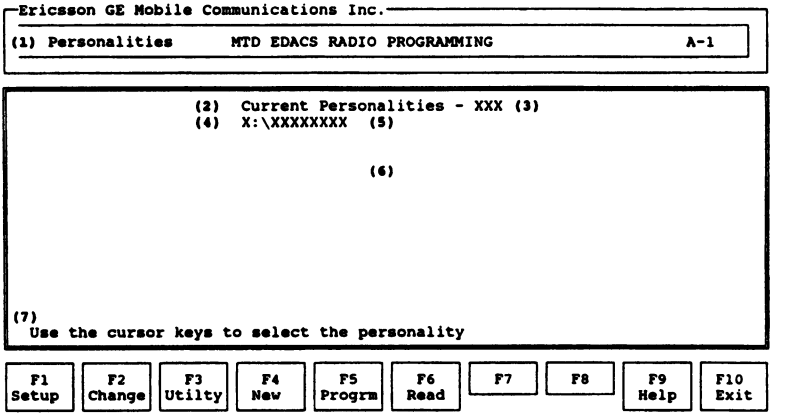


Figure 4-1 - Current Personalities Screen

(1)	Function	- indicates personalities function
(2)	Screen Title	- current personalities screen
(3)	Default Extension	- designated extension
(4)	Current Drive	- designated drive
(5)	Current Directory	- designated directory name
(6)	Personality Area	- personalities in current directory
(7)	Prompt Line	- current field instruction line

The Current Personalities Screen, shown in Figure 4-1, is the main screen for the MTD EDACS radio programmer. From this screen you will be able to create personalities, program personalities into the radio and read personalities out of the radio. To access a personality, move the cursor (reverse video bar) across the screen using the arrowed cursor keys. There is room available for up to 70 personalities on the screen. Once the screen is full additional personalities can be accessed by using the **Pg Dn** and **Pg Up** cursor keys.

NOTES

1) Throughout this document the term personality is used. Personality is used generically to refer to the information stored in one radio causing it to operate differently from another radio.

2) Whenever the program is initiated, the extension will default to the extension used when the program was last run. Only personalities with the extension identified are listed in this screen.

From the Current Personalities Screen, function key options are:

F1 - Setup Select this option if you want to:
Select your personality creation defaults.

F2 - Change Select this option if you want to:
Change or edit an existing personality.

F3 - Utilty Select this option if you want to:
Change the communication port, directory, extension, or environment; delete a personality; print a personality to the file, screen, or printer.

F4 - New Select this option if you want to:
Create a new personality.

F5 - Progrm Select this option if you want to:
Program a radio with the personality selected.

F6 - Read Select this option if you want to:
Read the personality out of the radio.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Exit Select this option if you want to:
Terminate the program and return to the control of DOS.

SETTING UP THE PROGRAM

To set up the program you will first need to select the **F1 Setup** key while in the Current Personalities Screen. The setup portion of this program consists of the Agency Partition Data Window and the Frequency Range Window.

The Agency Partition Data Window must be defined before any personalities can be created. This window allows you to initialize agency/fleet/subfleet partitioning.

The band split default is defined in the Frequency Range Window. The band split identifies the appropriate frequency range of frequency sets during creation.

Once agency data and band split defaults are established, you may continue to create frequency sets, group sets, and special call sets. These sets are records or files of information created and stored on disk by the programmer.

The Currently Defined Frequency Sets Screen can be accessed by selecting **F2 Freq**. Frequency sets contain system frequency settings.

The Currently Defined Group Sets Screen can be accessed by selecting **F3 Group**. Group sets contain group ID's and the state of each group option.

The Currently Defined Special Call Sets Screen can be accessed by selecting **F4 SpCall**. Special call sets contain a list of phone numbers and/or individual radio ID's.

Agency Partition Data

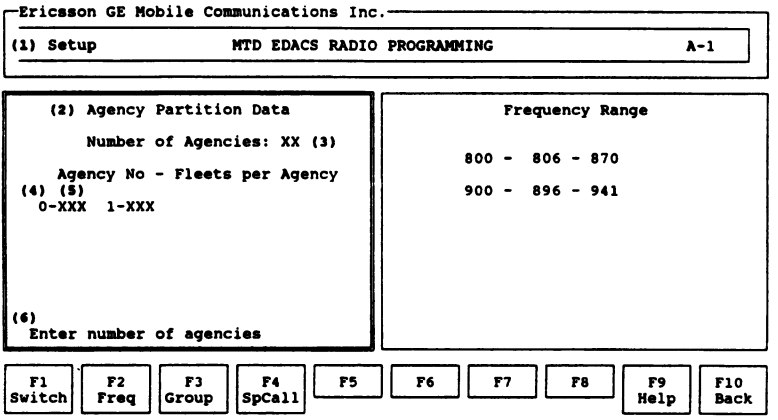


Figure 4-2 - Agency Partition Data Window

(1) Function - indicates setup function
(2) Window Title - agency partition data window
(3) Number of Agencies - shows number of agencies in system
(4) Agency No - indicates agency identified
(5) Fleets per Agency - indicates number of fleets
(6) Prompt Line - current field instruction line

The Agency Partition Data Window, shown in Figure 4-2, is accessed by selecting **F1 Setup** while in the Current Personalities Screen. This window is used to initialize agency/fleet/subfleet partitioning.

NOTE

The Agency Partition Data Window can be accessed from windows other than the Current Personalities Screen. When agency partition data is changed from another window, it is only reflected in the personality being created. The original agency partition data defined in the Setup portion of the program will remain the same.

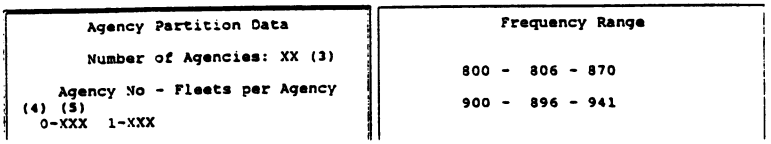
CAUTION

Because the use of an agency structure creates certain limitations within your system, we recommend that you thoroughly understand the agency hierarchy and how to optimize its use before establishing any agencies on your system.

NOTES

The information entered in this window is the default for new personalities. Changing this information from another radio options window will not change existing personalities. Changing the agency/fleet/subfleet partitioning in a radio personality will not change this default information.

A warning is issued if you edit a personality (**F2 Change** from Current Personalities Screen) whose partitioning differs from the default.



Number of Agencies (3) The **Number of Agencies** field specifies the number of agencies in the system. Once a valid number is entered, the appropriate number of fleet fields will appear below. You can then define the number of fleets in each agency.

Enter the appropriate number of agencies. The possible number of agencies are 2, 4, 8, 16, and 32. You cannot specify intermediary numbers. For example, if your system contains 12 agencies, specify 16.

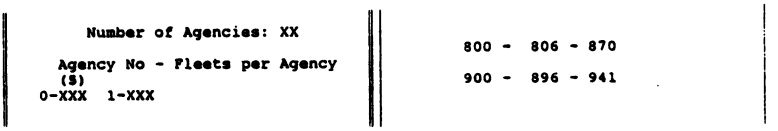
If the number of agencies is zero, the PC Programmer assumes that agency partitioning (the capability to decode to the agency/fleet/ subfleet level) is disabled. If the number of agencies is not defined as zero, the Fleets per Agency field must be defined.

NOTE

Every radio operating within a given agency structure must have exactly the same agency partition data to insure correct operation.

Agency No (4) The **Agency Number** field is used as a positional indicator to reference the Fleets per Agency fields that are being defined.

The user cannot access this field as it is "Display Only". This indicator begins with 0 and ends with 31 indicating the 32 possible agencies.



Fleets per Agency (5) The **Fleets per Agency** field indicates the number of fleets per agency. The number of fields are dependent upon the number entered in the number of agencies field. There are 32 fields possible.

Enter the number of fleets for each agency. Any number between 1 - 256 at a power of two is possible depending on the number of agencies specified. The first fleet within an agency is always fleet zero, but because this fleet is reserved for Agency All-Call, you should specify at least one additional fleet per agency. For example, if you want to create three separate fleets within one agency, you should specify four fleets. If you want to create four separate fleets within an agency, you must specify eight fleets (because eight is the next allowable value for the number of fleets per agency).

The maximum number of fleets per agency are:

When the Number of Agencies are 2,
Maximum Fleets are 256

When the Number of Agencies are 4,
Maximum Fleets are 128

When the Number of Agencies are 8,
Maximum Fleets are 64

When the Number of Agencies are 16,
Maximum Fleets are 32

When the Number of Agencies are 32,
Maximum Fleets are 16

NOTE

Every radio operating within a given agency structure must have exactly the same agency partition data to insure correct operation.

From the Agency Partition Data Window, function key options are:

F1 - Switch Select this option if you want to:
Select the default frequency range.

F2 - Freq Select this option if you want to:
Create, delete, or modify frequency sets.

F3 - Group Select this option if you want to:
Create, delete, or modify group sets.

F4 - SpCall Select this option if you want to:
Create, delete, or modify special call sets.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

NOTE

If you entered the Agency Partition Data Window from a window other than the Current Personalities Screen, pressing **F10 Back** will return to that particular window.

Frequency Range

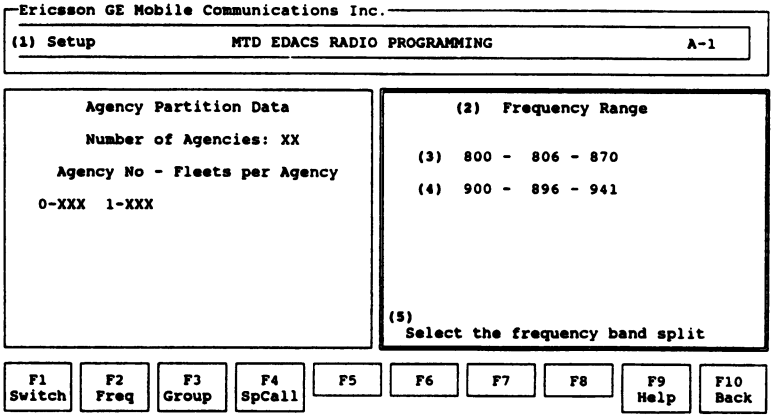


Figure 4-3 - Frequency Range Window

(1) Function - indicates setup function
(2) Window Title - frequency range window
(3) 800 Frequency Range - indicates 800 band split
(4) 900 Frequency Range - indicates 900 band split
(5) Prompt Line - current field instruction line

The Frequency Range Window, shown in Figure 4-3, is accessed by pressing **F1 Switch** while in the Agency Partition Data Window. This window is used to select the default band split that the programmer will use for frequency set creation and personality creation. The band split selected here will determine the band split that will be used on all new personalities and frequency sets.

800 (3) The **800** field is used to indicate the defaulted band split used for frequency set creation and personality creation in the 800 range.

To specify a 800 band split, use the cursor keys to move the highlighted video bar over the range desired and exit the window. The programmer will remember the selected range until it is changed.

900 (4) The **900** field is used to indicate the defaulted band split used for frequency set creation and personality creation in the 900 range.

To specify a 900 band split, use the cursor keys to move the highlighted video bar over the range desired and exit the window. The programmer will remember the selected range until it is changed.

From the Frequency Range Window, function key options are:

F1 - Switch Select this option if you want to:
Change or modify agency partition data.

F2 - Freq Select this option if you want to:
Create, delete, or modify frequency sets.

F3 - Group Select this option if you want to:
Create, delete or modify group sets.

F5 - SpCall Select this option if you want to:
Create, delete or modify special call sets.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

Creating Frequency Sets

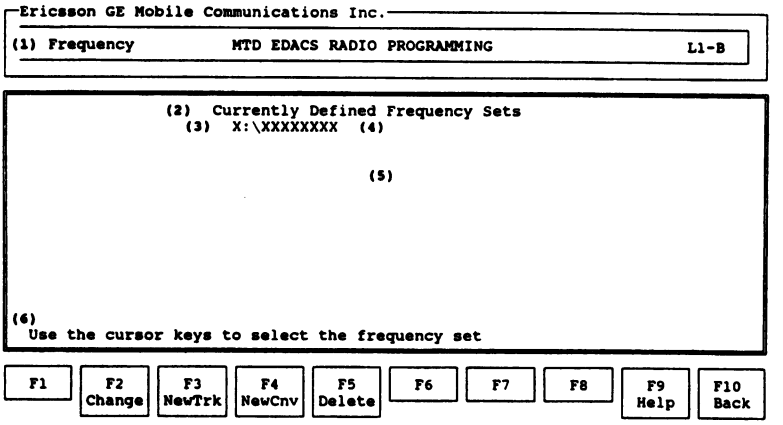


Figure 4-4 - Currently Defined Frequency Sets Screen

(1) Function - indicates frequency function
(2) Screen Title - currently defined frequency sets
(3) Current Drive - designated drive
(4) Current Directory - designated directory name
(5) Frequency Set Area - frequency sets in current directory
(6) Prompt Line - current field instruction line

The Currently Defined Frequency Sets Screen, shown in Figure 4-4, is accessed by selecting **F1 Setup** from the Current Personalities Screen and then **F2 Freq** from the Agency Partition Data Window or the Frequency Range Window. This screen identifies the currently defined frequency sets residing in the data base.

From this screen you can create, delete, or modify frequency sets. To access a frequency set, move the cursor (reverse video bar) across the screen using the arrowed cursor keys. There is room available for up to 70 frequency sets on the screen. Once the screen is full, additional frequency sets can be accessed by using the **Pg Dn** and **Pg Up** cursor keys.

From the Currently Defined Frequency Sets Screen, function key options are:

F2 - Change Select this option if you want to:
Change or edit an existing frequency set.

F3 - NewTrk Select this option if you want to:
Create a new trunked frequency set.

F4 - NewCnv Select this option if you want to:
Create a new conventional frequency set.

F5 - Delete Select this option if you want to:
Delete or remove a frequency set from the data base.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Agency Partition Data Window or the Frequency Range Window.

NOTE

The Currently Defined Frequency Sets Screen can also be accessed from the Radio Personality Screen. Starting at the Current Personalities Screen select **F4 New** and the Radio Personality Screen will appear. Select **F8 More**, the function keys change to show other functions available. Select **F2 Freq** and the Currently Defined Frequency Sets Screen will appear.

Trunked Frequency Sets

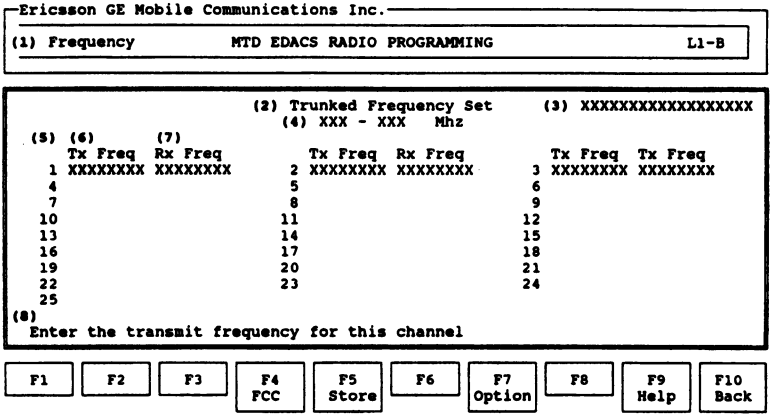


Figure 4-5 - Trunked Frequency Set Window

(1) Function - indicates frequency function
(2) Window Title - trunked frequency set window
(3) Channel Entry - channel information displayed
(4) Band Split - indicates current band split
(5) Channel - indicates trunked channel selection
(6) Tx Frequency - defines transmit frequency
(7) Rx Frequency - defines receive frequency
(8) Prompt Line - current field instruction line

The Trunked Frequency Set Window, shown in Figure 4-5 is accessed by selecting **F2 Freq** from the Agency Partition Data Window or the Frequency Range Window, and **F3 NewTrk** while in the Currently Defined Frequency Sets Screen. This screen is used to define up to 25 channels for the site.

Channel Entry (3) The **Channel Entry** field indicates which channel information will be displayed in the channel fields. By toggling the **F4 FCC/TX** function key, the channel entry field will indicate TX FCC Channel or Transmit Frequency to indicate that transmit FCC channels are being displayed, or transmit frequencies are being displayed.

This field is a "Display Only" field and can only be accessed by toggling the **F4 FCC/TX** function key.

Band Split (4) The **Frequency Set Band Split** field for this set indicates the frequency entries that will be acceptable in defining a frequency set.

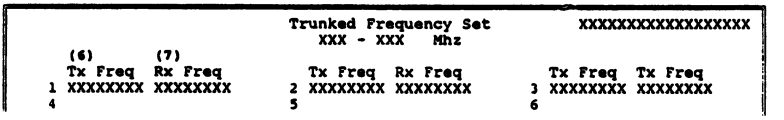
This field is a "Display Only" field and cannot be accessed while in this window. The band split is selected in the Frequency Range Window in the setup portion of the program.

Channel (5) The **Channel Number** field is a positional channel indicator in the Trunked Frequency Set Window. The channel number indicates which channel is being defined on the line.

This field is a "Display Only" field and cannot be accessed.

Tx Freq (6) The **Transmit Frequency** field is used to specify which frequency the radio will transmit at when tuned to this channel.

Enter the desired transmit frequency. Depending on the state of the Channel Entry field, values can be entered as a frequency (in the associated band split) or an FCC channel number.



Tx Freq Cont'd (6)

- If the band split is 806 - 870, a valid entry for the FCC Channel should be in the range of 1 - 1519, or blank. A blank channel has a value of zero. A valid entry for the Transmit Frequency should be in the range of 806.0125 - 824-9875 allowing the receive frequency to be set 45 Mhz higher.
- If the band split is 896 - 941, a valid entry for the FCC Channel should be in the range of 1 - 479, or blank. A blank channel has a value of zero. A valid entry for the Transmit Frequency should be in the range of 896.0125 - 901.9875 allowing the receive frequency setting to be set 39 Mhz higher.

NOTE

However you choose to enter the transmit frequency (i.e., as an FCC Channel or a Transmit Frequency number), the other Channel Entry setting will be directly affected. For example, select a "1" in the Tx Freq field with the Channel Entry field set to FCC Channel. Now toggle the **F4 TX** key to cause the Channel Entry field to read Transmit Frequency. Where "1" was designated as the Tx Freq in the FCC Channel setting, a frequency in the associated band split will appear in the Transmit Frequency setting window. Appendix F lists corresponding values for transmit FCC Channel and Transmit Frequency frequencies.

Rx Freq (7) The **Receive Frequency** field is used to specify which frequency the radio will receive at when tuned to this channel. This entry is automatically entered whenever a transmit frequency is entered.

This is a "Display Only" field which is automatically entered once a transmit frequency is defined. The value appearing in this field will be 45 Mhz greater than the value entered in the transmit frequency field whenever the band split is in the 806 - 870 range. The value appearing in this field will be 39 Mhz greater than the value entered in the transmit frequency field whenever the band split is in the 896 - 941 range.

From the Trunked Frequency Set Screen, function key options are:

F4 - TX/FCC Select this option if you want to:
Toggle the channel entry fields between FCC Channel and Transmit Frequency.

F5 - Store Select this option if you want to:
Store the channel definitions defined to disk anytime during programming.

F7 - Option Select this option if you want to:
Modify frequency set options.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Currently Defined Frequency Sets Screen.

Trunked Set Options

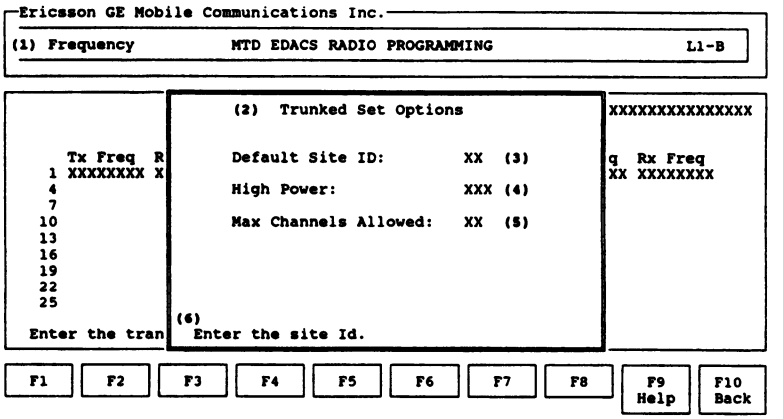


Figure 4-6 - Trunked Set Options Window

(1) Function - indicates frequency function
(2) Window Title - trunked set options window
(3) Default Site ID - trunked default site ID number
(4) High Power - indicates power level setting
(5) Max Channels Allowed - reserves space for extra channels
(6) Prompt Line - current field instruction line

The Trunked Set Options Window, shown in Figure 4-6 is accessed by selecting **F7 Option** while in the Trunked Frequency Sets Window. This window is used to define or modify the options associated with a trunked frequency set.

Default Site ID

(3) The **Default Site ID** field specifies the ID number identifying the site ID that this frequency set will default to.

Enter the default site ID number. To be valid the site ID number must be in the range of 1 - 31.

High Power (4) The **High Power** field indicates whether the power level setting for this frequency set should be set at a high power level setting or a low power level setting.

Using the **TAB** key as a toggle switch, select between "On" and "Off". Selection of "On" indicates that this frequency set will be set to a high power level setting. Selection of "Off" indicates that a lower power level setting will apply.

Max Channels Allowed (5) The **Maximum Channels Allowed** field is used to reserve space for additional channels to be added to this trunked frequency set.

Enter a number in the range of 1 - 25 to indicate additional channels to be added to this trunked frequency set. Entering a "0" will not allow additional space to be reserved.

From the Trunked Set Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Trunked Frequency Set Window.

Conventional Frequency Sets

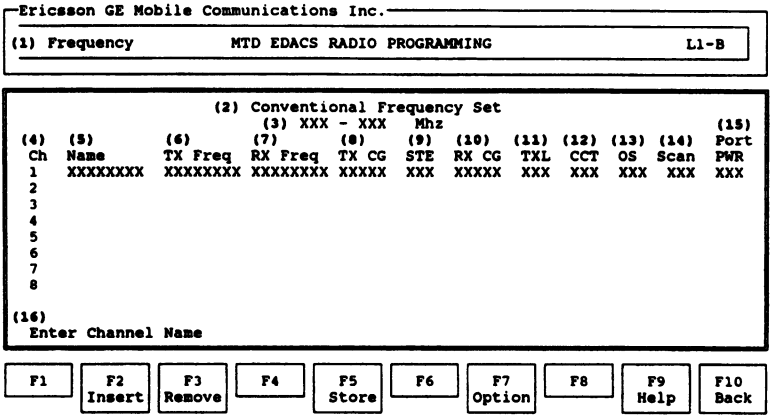


Figure 4-7 - Conventional Frequency Set Window

(1) Function - indicates frequency function
(2) Window Title - conventional frequency set window
(3) Band Split - indicates current band split
(4) Channel - positional channel indicator
(5) Name - alphanumeric display name
(6) TX Freq - defines channel transmit frequency
(7) RX Freq - defines channel receive frequency
(8) TX CG - transmit Channel Guard for channel
(9) STE - enables squelch tail elimination
(10) RX CG - receive Channel Guard for channel
(11) TXL - allows radio tx with receive present
(12) CCT - enables carrier control timer
(13) OS - enables oscillator shift
(14) Scan - enables channel in fixed scan list
(15) Port PWR - shows channel power level setting
(16) Prompt Line - current field instruction line

The Conventional Frequency Set Screen, shown in Figure 4-7, is accessed by selecting **F2 Freq** from the Agency Partition Data Window or the Frequency Range Window, and **F4 NewCnv** from the Currently Defined Frequency Sets Screen.

The screen will display up to eight channel definitions (lines of data) at a time. Each channel definition consists of the channel number,

channel identifier (name) to be displayed on the radio, frequency settings, designated Channel Guards, and other options. Additional channel definitions can be accessed by the **Pg Dn** and **Pg Up** cursor keys. Please note that there are 48 channel definitions allowed per frequency set.

You can easily insert or remove channel definitions using the **F2 Insert** and **F3 Remove** keys. To insert a channel definition place your cursor on the line above where you want the new channel definition to appear and press **F2 Insert**. An empty channel definition line will appear shifting all the following lines to the next higher channel number. To delete a channel definition line place your cursor anywhere on the channel definition you want deleted and press **F3 Remove**. The line you are on will disappear and the line that was just below it will now occupy the space of the deleted line. Thus, all lines below the deleted line will become one channel number less than before.

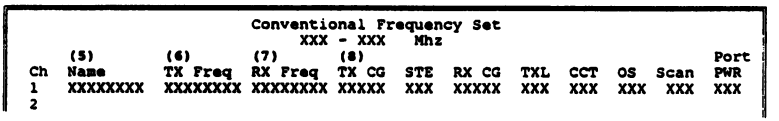
Before inserting data in the program it is recommended that you first fill out the available work sheet in Appendix G of this manual.

Band Split (3) The **Frequency Set Band Split** field for this set is selected from the Frequency Range Window and is used to indicate the frequency entries that will be acceptable in defining a frequency set.

This field is a "Display Only" field and is not accessible from this window.

Channel (4) The **Channel Number** field is a numeric field used as a positional channel indicator in the Conventional Frequency Set Window. The channel number indicates which channel is being defined on the line.

This field is "Display Only" and cannot be accessed.



```
                    Conventional Frequency Set
                          XXX - XXX   Mhz
    (5)       (6)       (7)       (8)                                  Port
Ch  Name      TX Freq   RX Freq   TX CG  STE  RX CG  TXL  CCT  OS  Scan  PWR
1   XXXXXXXX  XXXXXXXX  XXXXXXXX  XXXXX  XXX  XXXXX  XXX  XXX  XXX  XXX  XXX
2
```

Name (5) The **Channel Name** field is used to define the display while the unit is tuned to this channel.

Enter the desired channel name. To specify a name, you can use up to eight valid display characters in any alphanumeric combination. All characters in this field will be converted to upper case even if entered in lower case.

TX Freq (6) The **Transmit Frequency** field is used to specify the channel transmit frequency. The value entered here indicates the frequency that the radio will transmit at while tuned to the channel.

Input the frequency that the radio should transmit at while tuned to this channel. Only frequencies within the currently defined band split are acceptable as valid. Frequencies must be evenly divisible by .0125 (12.5 Khz).

When defining a new channel, the transmit frequency will be copied over to the receive frequency as a default. When the selected transmit frequency is in the 800 band split, the receive frequency will be that frequency plus 45 Mhz. When the selected transmit frequency is in the 900 band split, the receive frequency will be that frequency plus 39 Mhz.

RX Freq (7) The **Receive Frequency** field is used to specify the channel receive frequency. The value entered here indicates the frequency that the radio will receive at while tuned to the channel.

When defining a new channel, the transmit frequency will be copied over to the receive frequency as a default. When the selected transmit frequency is in the 800 band split, the receive frequency will be that frequency plus 45 Mhz. When the selected transmit frequency is in the 900 band split, the receive frequency will be that frequency plus 39 Mhz.

If a different receive frequency is desired, pressing **Ctrl-Backspace** simultaneously will clear the field and a new entry can be typed in. Only frequencies within the currently defined band split are acceptable as valid. Frequencies must be evenly divisible by .0125 (12.5 Khz). This entry must be at least 39 Mhz above the transmit frequency when working in the 900 band split and at least 45 Mhz above the transmit frequency when working in the 800 band split.

TX CG (8) The **Transmit Channel Guard** field is used to enter the transmit Channel Guard for this channel. This field accepts Digital and tone Channel Guard codes.

Enter the desired transmit Channel Guard code for this channel using either tone or Digital Channel Guard codes.

- Tone Channel Guards are identified by the placement of a decimal point within the field. For example: 67.0 identifies a tone Channel Guard of 67 Hz. Valid tone Channel Guards are in the range of 67.0 to 210.7 Hz.
- Digital Channel Guards do not have a decimal point within the field. For example: 023, 047, 315, etc. When using a Digital Channel Guard, it must be included in the Digital Channel Guard Table shown in Appendix D.

```
                    Conventional Frequency Set
                         XXX - XXX   Mhz
                                    (9)   (10)   (11)  (12)  (13)  (14)  Port
Ch  Name      TX Freq   RX Freq    TX CG  STE   RX CG  TXL   CCT   OS    Scan  PWR
1   XXXXXXXX  XXXXXXXX  XXXXXXXX  XXXXX  XXX   XXXXX  XXX   XXX   XXX   XXX   XXX
2
```

STE (9) The **Squelch Tail Elimination** field indicates whether or not squelch tail elimination should be enabled for this channel.

Using the **TAB** key as a toggle switch, select "On" or "Off" "On" enables squelch tail elimination for this channel. "Off" indicates squelch tail elimination will be disabled.

RX CG (10) The **Receive Channel Guard** field is used to enter the receive Channel Guard for this channel. This field accepts Digital and tone Channel Guard codes.

Enter the desired receive Channel Guard code for this channel using either tone or Digital Channel Guard codes.

- Tone Channel Guards are identified by the placement of a decimal point within the field. For example: 67.0 identifies a tone Channel Guard of 67 Hz. Valid tone Channel Guards are in the range of 67.0 to 210.7 Hz.
- Digital Channel Guards do not have a decimal point within the field. For example: 023, 047, 315, etc. When using a Digital Channel Guard, it must be included in the Digital Channel Guard Table shown in Appendix D.

TXL (11) The **Transmit Lockout** field indicates whether the radio will transmit on this conventional channel while a receive signal is present.

Using the **TAB** key as a toggle switch, select "On" or "Off". Selecting "On" prevents the radio from transmitting on this channel while a receive signal is present. Selection of "Off" allows the radio to transmit when a receive signal is present.

CCT (12) The **Carrier Control Timer** field indicates whether the carrier control timer will be enabled for this channel.

Using the **TAB** key as a toggle switch, select "On" or "Off" Selecting "On" enables the carrier control timer for this channel as defined in the options window. Selection of "Off" will disable the carrier control timer.

OS (13) The **Oscillator Shift** field is used to indicate whether or not the radio will adjust or shift the oscillator frequency to prevent spurious emissions.

Selection of this field is through toggling the **TAB** key between "Yes" and "No" values. A "Yes" value causes the unit to shift the oscillator frequency to prevent spurs on this channel.

Scan (14) The **Scan** field is used to determine whether or not the channel will be included in the scan list.

Selection of this field is through toggling the **TAB** key between "On" and "Off" values. An "On" value indicates the channel is set for non-priority scan. "Off" indicates that the channel will not be included in the scan list.

```
                    Conventional Frequency Set
                         XXX - XXX   Mhz                              (15)
                                                                      Port
Ch  Name      TX Freq   RX Freq   TX CG  STE  RX CG  TXL  CCT  OS  Scan  PWR
1   XXXXXXXX  XXXXXXXX  XXXXXXXX  XXXXX  XXX  XXXXX  XXX  XXX  XXX  XXX  XXX
2
```

Port PWR (15) The **Power Level Setting** field is used to indicate whether or not the unit will transmit at high power while on this channel.

Using the **TAB** key as a toggle switch, select between "Hi" and "Low". Selection of "Hi" indicates that the radio will transmit at a high power setting. Selection of "Low" indicates that the radio will transmit at a lower power setting.

From the Conventional Frequency Set Screen, function key options are:

F2 - Insert Select this option if you want to:
Insert a new line for a channel definition.

F3 - Remove Select this option if you want to:
Remove a channel definition line.

F5 - Store Select this option if you want to:
Store the channel definitions defined to disk anytime during programming.

F7 - Option Select this option if you want to:
Modify conventional frequency set options.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Currently Defined Frequency Sets Screen.

Conventional Set Options

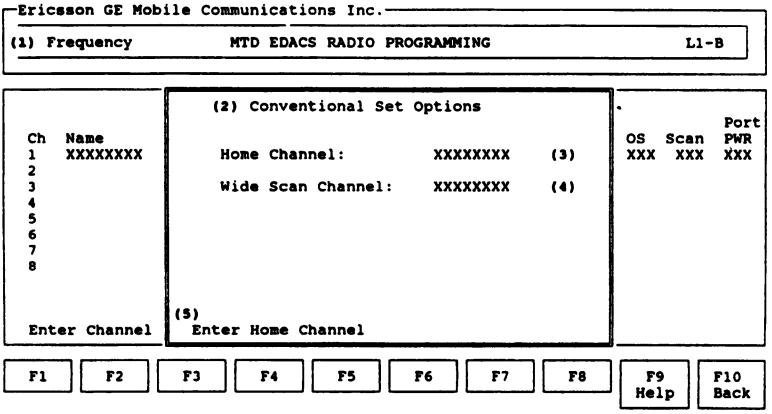
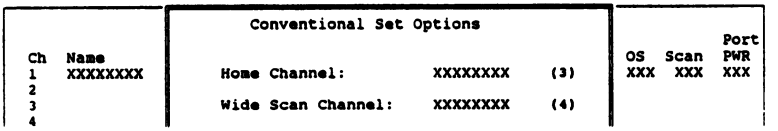


Figure 4-8 - Conventional Set Options Window

(1) Function - indicates frequency function
(2) Window Title - conventional set options window
(3) Home Chan - specifies frequency set home channel
(4) Wide Scan Channel - specifies default wide scan channel
(5) Prompt Line - current field instruction line

The Conventional Frequency Set Options Window, shown in Figure 4-8, is accessed by selecting **F7 Option** while in the Conventional Frequency Set Window. This window allows you to define options associated with this frequency set.



Home Chan (3) The **Home Channel** field is used to specify the home channel for this frequency set. This channel is the channel the radio will tune to when the Emer/Home key is depressed while on this system.

Enter the desired home channel. To be valid, the name entered in this field must correspond to a name in the Channel field of the Conventional Frequency Set Window.

Wide Scan Channel (4) The **Wide Scan Channel** is used to indicate the channel the radio will tune to between wide scan channel scanning.

Enter the desired wide scan channel. To be valid, the name entered in this field must correspond to a name in the Channel field of the Conventional Frequency Set Window.

From the Conventional Set Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Conventional Frequency Set Window.

Creating Group Sets

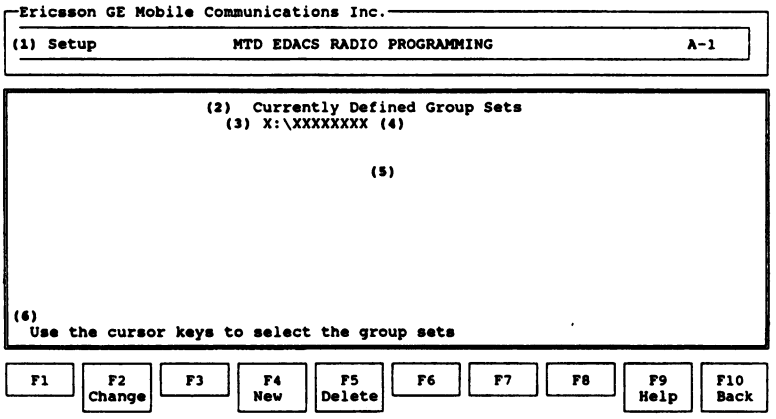


Figure 4-9 - Currently Defined Group Sets Screen

(1)	Function	- indicates setup function
(2)	Screen Title	- currently defined group sets screen
(3)	Current Drive	- designated drive
(4)	Current Directory	- designated directory name
(5)	Group Set Area	- group sets in current directory
(6)	Prompt Line	- current field instruction line

The Currently Defined Group Sets Screen, shown in Figure 4-9, is accessed by selecting **F3 Group** while in the Agency Partition Data Window or the Frequency Range Window. This screen is used to show the currently defined group sets residing in the data base.

From this screen you will be able to create, delete, or modify group sets. To access a group set, move the cursor (reverse video bar) across the screen using the arrowed cursor keys. There is room available for up to 70 group sets on the screen. Once the screen is full, additional group sets can be accessed by using the **Pg Dn** and **Pg Up** cursor keys.

From the Currently Defined Group Sets Screen, function key options are:

F2 - Change Select this option if you want to:
Change or edit an existing group set.

F4 - New Select this option if you want to:
Create a new group set.

F5 - Delete Select this option if you want to:
Delete or remove a group set from the data base.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Agency Partition Data Window, or Frequency Range Window.

NOTE

The Currently Defined Group Sets Screen can also be accessed from the Radio Personality Screen. Starting at the Current Personalities Screen, select **F4 New** and the Radio Personality Screen will appear. Select **F8 More** and **F3 Group**, and the Currently Defined Group Sets Screen will appear.

Group Set Summary

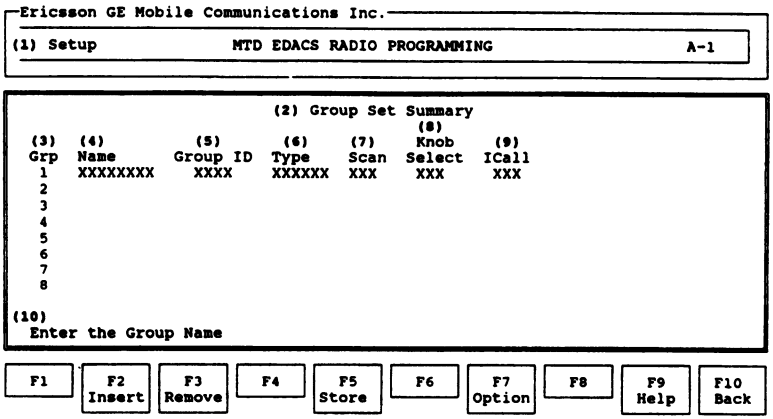


Figure 4-10 - Group Set Summary Window

(1) Function - indicates setup function
(2) Window Title - group set summary window
(3) Grp - positional group sequencing
(4) Name - identifies group display name
(5) Group ID - specifies group ID for this group
(6) Type - indicates group type
(7) Scan - indicates scan enable
(8) Knob Select - enables knob select function
(9) ICall - individual group setting call enable
(10) Prompt Line - current field instruction line

The Group Set Summary Window, shown in Figure 4-10, is accessed by selecting **F2 Change** or **F4 New** from the Currently Defined Group Sets Screen. This window allows you to create or modify group set definitions.

Similar to frequency sets, group sets reside on disk until they are called into a personality. The Group Set Summary Window displays each group within the group set and identifies the state of each of the group options. Each group consists of a group number, group name, group ID, and other options to be displayed on the radio. There can be up to 48 groups within a group set. Each window will display eight groups at a time. Additional groups can be accessed by the **Pg Dn** and **Pg Up** keys.

```
                         Group Set Summary

 (3)  (4)           (5)       (6)             Knob
 Grp  Name          Group ID  Type     Scan   Select  ICall
  1   XXXXXXXX       XXXX     XXXXXX   XXX     XXX     XXX
  2
```

You can easily insert or remove a group using the **F2 Insert** and **F3 Remove** keys. To insert a group place your cursor on the line where you want the new group to appear and press **F2 Insert**. An empty group line will appear shifting all following groups one line lower. To delete a group, place your cursor anywhere on the line of the group you want deleted and press **F3 Remove**. The line you are on will disappear and the line that was just below it will now occupy the space of the deleted line. Thus, all groups below the deleted group will shift upward one level.

Before inserting data in the program it is recommended that you first fill out the available work sheet in Appendix G of this manual.

Grp (3) The **Group Number** field is used as a positional group indicator. The group number indicates which group is defined on the line.

This field is a "Display Only" field and cannot be accessed.

Name (4) The **Group Display Name** field is used to specify the display name for this group while it is selected or scanned.

Enter the desired group display name. You can use up to eight valid display characters in any alphanumeric combination. This field is an upper case field, therefore all characters will be converted to upper case even if entered in lower case.

Group ID (5) The **Group Identification** field is used to specify the group ID for this group. The group ID is compared against the agency partition data to determine whether or not the receiving radio should participate in the call.

Enter the desired ID. The group ID should be in the range of 1 and 2048 inclusive.

NOTE

ID 2048 is the Agency 0 All Call - actual ID = 0.

Type (6) The **Type** field indicates how the group will be used.

Using the **TAB** key as a toggle switch, select between "Normal", "Encode" and "Decode". Selecting "Normal" enables both encode and decode to operate causing normal operation for this group set. Selecting "Encode" enables the group to transmit calls only. "Decode" enables the group to receive calls only.

When "Encode" is selected and another unit keys on the group, the encode only radio will sound an alert when the user tries to key it. When "Decode" is selected and the user tries to transmit a call, the decode only radio will sound an alert. This lockout is a result of the special call tracking function for encode only and decode only groups.

NOTE

When Base/Mobile Operation is enabled (in the User Control Options Window) Group 1 must be set as "Encode". Another Group must be set as "Normal" and designated as the Home Group in the Group Options Window.

```
                          Group Set Summary
                                      (8)
                               (7)    Knob     (9)
Grp  Name        Group ID  Type    Scan   Select   ICall
 1   XXXXXXXX      XXXX    XXXXXX  XXX     XXX      XXX
 2
```

Scan (7) The **Scan** field determines whether or not the group will be included in the scan list.

Using the **TAB** key as a toggle switch, select "On" or "Off". Selecting "On" indicates that the group will be included in the scan list while on this group set and the scan function is enabled on the unit.

Knob Select (8) The **Knob Select** field is used to specify whether or not to enable the knob select feature.

Using the **TAB** key as a toggle switch, select "On" or "Off". "On" enables the knob select option. "Off" disables the feature.

Future implementation of this feature forthcoming.

ICall (9) The **Individual Call Enable** field indicates whether or not special call and individual call are disabled when set to this group.

Using the **TAB** key as a toggle switch, select between "On" and "Off". Selecting "On" enables individual and special calls while on this group. Selecting "Off" disables individual and special calls while on this group.

From the Group Set Summary Window, function key options are:

F2 - Insert Select this option if you want to:
Insert a new line for a group definition.

F3 - Remove Select this option if you want to:
Remove a group definition line.

F5 - Store Select this option if you want to:
Save the group set to disk and remain in the edit function.

F7 - Option Select this option if you want to:
Modify frequency set options.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Currently Defined Group Sets Screen.

Group Set Options

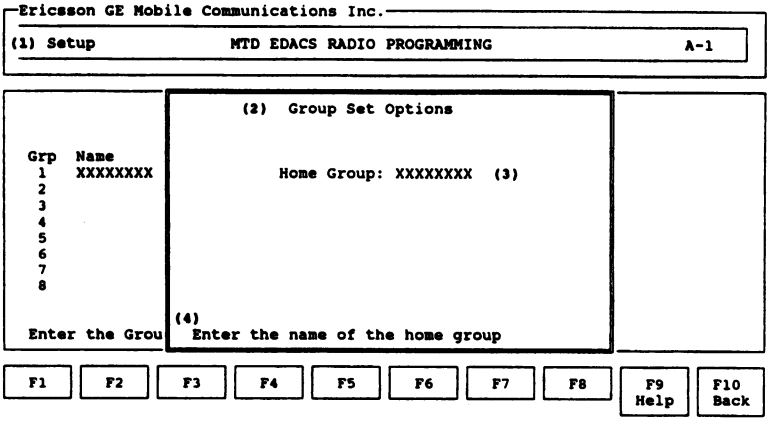


Figure 4-11 - Group Set Options Window

(1) Function - indicates setup function
(2) Window Title - group set options window
(3) Home Group - specifies home group
(4) Prompt Line - current field instruction line

The Group Set Options Window, shown in Figure 4-11, is accessed by selecting **F7 Option** while in the Group Set Summary Window. This window allows you to define option(s) associated with the group set.

Home Group

(3) The **Home Group** field is used to specify the home group for this group set. This group is the group that the radio will tune to whenever the Home key is depressed.

Enter the desired home group. Any combination of alphanumeric display characters, up to eight characters in length, are acceptable. Any alphabetic characters will be converted to upper case.

NOTE

When Base Mobile Operation is enabled (in the User Control Options Window) the designated Home Group must have a field type set to "Normal" in the Group Summary Window.

From the Group Set Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Group Sets Summary Window.

Creating Special Call Sets

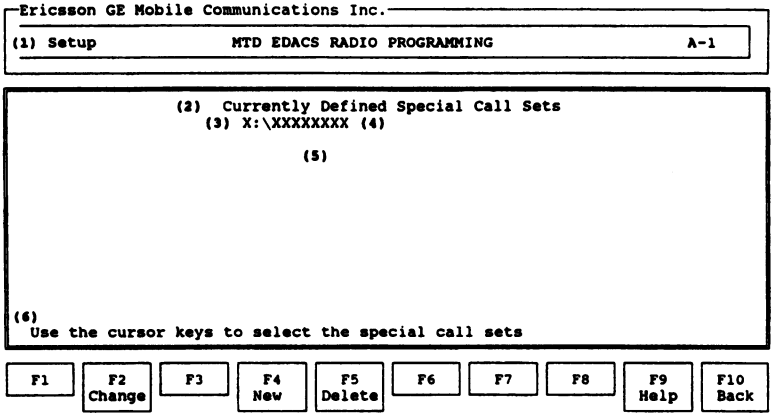


Figure 4-12 - Currently Defined Special Call Sets Screen

(1) Function - indicates setup function
(2) Screen Title - currently defined special call sets
(3) Current Drive - designated drive
(4) Current Directory - designated directory name
(5) Special Call Set Area - special call sets in directory
(6) Prompt Line - current field instruction line

The Currently Defined Special Call Sets Screen, shown in Figure 4-12, is accessed by selecting **F4 SpCall** while in the Agency Partition Data Window or Frequency Range Window. This screen is used to show the currently defined special call sets residing in the data base.

From this screen you will be able to create, delete, or modify special call sets. To access a special call set, move the cursor (reverse video bar) across the screen using the arrowed cursor keys. There is room available for up to 70 special call sets on the screen. Once the screen is full, additional group sets can be accessed by using the **Pg Dn** and **Pg Up** cursor keys.

From the Currently Defined Special Call Sets Screen, function key options are:

F2 - Change Select this option if you want to:
Change or edit an existing special call set.

F4 - New Select this option if you want to:
Create a new special call set.

F5 - Delete Select this option if you want to:
Delete or remove a special call set from the data base.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Agency Partition Data Window, or Frequency Range Window.

NOTE

The Currently Defined Special Call Sets Screen can also be accessed from the Radio Personality Screen. Starting at the Current Personalities Screen, select **F4 New** and the Radio Personality Screen will appear. Select **F8 More** and **F6 Sp-Call**, and the Currently Defined Special Call Sets Screen will appear.

Special Call Set

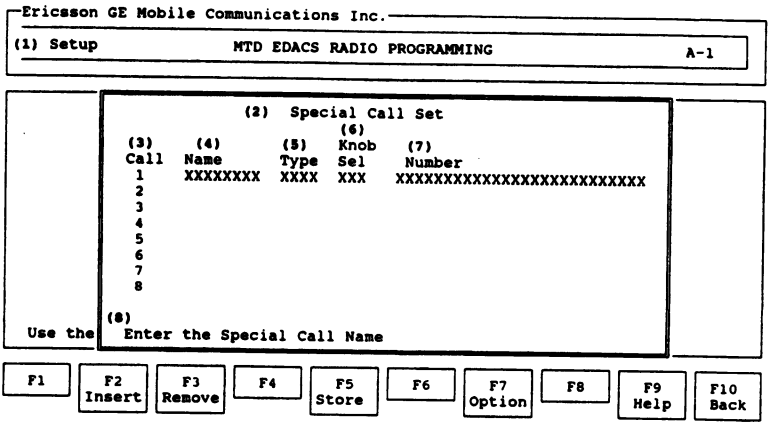


Figure 4-13 - Special Call Set Window

(1) Function - indicates setup function
(2) Window Title - special call set window
(3) Call - indicates special call sequencing
(4) Name - indicates special call display name
(5) Type - identifies call type
(6) Knob Select - enables knob select function
(7) Number - indicates special call number
(8) Prompt Line - current field instruction line

The Special Call Set Window, shown in Figure 4-13, is accessed by selecting **F4 New** from the Currently Defined Special Call Sets Screen. This window allows you to create or modify a special call set definition.

Similar to frequency sets and group sets, special call sets reside on disk until they are called into a personality. The Special Call Set Window displays each special call within the special call set. Each special call consists of the call type and number. There can be up to 96 special call definitions within a special call set. Each window will display eight special call definitions at a time. Additional special call definitions can be accessed by the **Pg Dn** and **Pg Up** keys.

You can easily insert or remove a special call definition using the **F2 Insert** and **F3 Remove** keys. To insert a special call, place your cursor on the line where you want the new call to appear and press **F2 Insert**. An empty call line will appear shifting all following calls one line lower. To delete the current call, place your cursor anywhere on the line of the call you want deleted and press **F3 Remove**. The current call disappears and all subsequent calls will be shifted up to fill in the gap.

NOTE

Only 99 special call line entries are allowed per system. Therefore, if you define up to 96 call entries in a special call set, then you can only define three more call entries to be associated with a single personality.

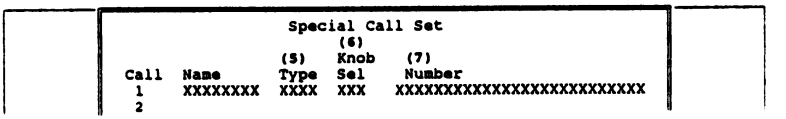
Before inserting data in the program it is recommended that you first fill out the available work sheet in Appendix G of this manual.

Call (3) The **Call Number** field is a positional special call indicator. The call number indicates which special call is defined on the line.

This field is a "Display Only" field and cannot be accessed.

Name (4) The **Name** field specifies the LCD display name for the radio while the radio is tuned to this special call.

Enter the desired special call display name. You can use up to eight valid alphanumeric display characters. The characters entered in this field will automatically be converted to upper case.



Type (5) The **Special Call Type** field indicates the call type being defined.

Using the **TAB** key as a toggle switch, select between "TELE", "DTMF", "CAL1", and "ALL".

TELE - indicates the radio will generate a telephone interconnect call using digits entered in the Number field.

DTMF - allows the user to generate a telephone interconnect call using DTMF digits from a microphone or keypad.

CAL1 - indicates an individual call 1.

ALL - performs a system all call.

Knob Sel (6) The **Knob Select** field is used to specify whether or not to enable the knob select feature.

Using the **TAB** key as a toggle switch, select "On" or "Off". "On" enables the knob select option. "Off" disables the feature.

Future implementation of this feature forthcoming.

Number (7) The **Special Call Number** field is used to specify the special call number for this special call.

Enter the desired special call number. The following calls are available:

TELE - Digital Telephone Interconnect Encode
Enter up to 26 digits. Numbers and spaces are valid, however, no special characters are allowed.

DTMF - DTMF Telephone Interconnect Encode
No number is entered for DTMF.

CAL1 - Individual Call Encode
The value here must be in the range of 1 - 16382 to reflect the unit ID.

ALL - System All Call
No number is entered here for System All Call.

From the Special Call Set Window, function key options are:

F2 - Insert Select this option if you want to:
Insert a new line for a special call definition.

F3 - Remove Select this option if you want to:
Remove a special call definition line.

F5 - Store Select this option if you want to:
Store the special call set to disk and remain in the edit function.

F7 - Option Select this option if you want to:
Modify special call set options.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Currently Defined Special Call Sets Screen.

Keypad Limit Options

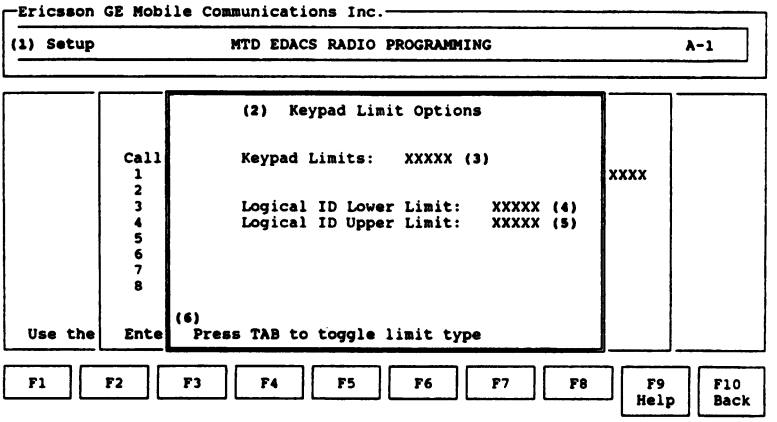


Figure 4-14 - Keypad Limit Options Window

(1) Function - indicates setup function
(2) Window Title - keypad limit options window
(3) Keypad Limits - sets keypad limit option
(4) Logical ID Lower Limit - sets lowest limit LID range
(5) Logical ID Upper Limit - sets highest limit LID range
(6) Prompt Line - current field instruction line

The Keypad Limit Options Window, shown in Figure 4-14, is accessed by selecting **F7 Option** from the Special Call Set Window. This window allows you to define options associated with a special call set.

Keypad Limits

(3) The **Keypad Limits** field allows a limit to be placed on the range of Individual Call IDs.

Using the **TAB** key as a toggle switch, select between "Range" and "None". Selection of "Range" allows an upper and lower limit to be set for Individual Call IDs. Selection of "None" indicates no range limit on the IDs entered.

The selection made in this field has direct control over the appearance of the Logical ID Lower Limit field and the Logical ID Upper Limit field. When "Range" is selected, the two fields are displayed and will accept data. When "None" is selected, these fields will not appear.

Logical ID Lower Limit (4) The **Logical ID Lower Limit** field specifies the lowest possible logical ID to be entered for an Individual Call.

Enter the desired low limit ID to be allowed. To be valid this entry must be in the range of 1 to 16382 and must be lower than the entry in the Logical ID Upper Limit field.

This field only appears when "Range" is selected in the Keypad Limits field.

Logical ID Upper Limit (5) The **Logical ID Upper Limit** field specifies the highest possible logical ID to be entered for an Individual Call on the desktop station.

Enter the desired high limit ID to be allowed. To be valid, this entry must be in the range of 1 to 16382 and must be higher than the entry in the Logical ID Lower Limit field.

This field only appears when "Range" is selected in the Keypad Limits field.

From the Keypad Limit Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Special Call Set Window.

Storing Sets

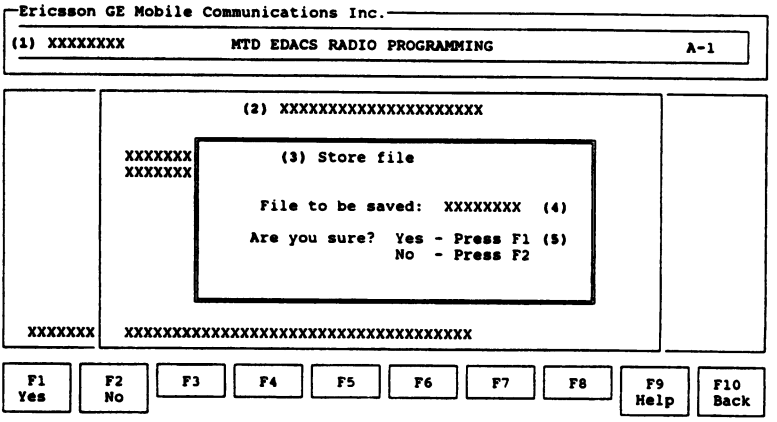


Figure 4-15 - Store File Window

(1)	Function	- indicates function
(2)	Set Window	- indicates current set window
(3)	Window Title	- store file window
(4)	File to be saved	- name to be stored under
(5)	Continue Prompt	- continue or abort option

The Store File Window, shown in Figure 4-15, is accessed by selecting **F5 Store** while in a Set Window. This window is used to save the file identified to the pool directory without leaving the set.

File to be saved (4) The **File to be saved** field is used to specify the name under which the current set is to be stored.

Enter the destination file name. You can use up to eight valid characters in any alphanumeric combination. This field is an upper case field, therefore all characters will be converted to upper case even if entered in lower case. This field will not accept file names that are not acceptable to DOS.

From the Store File Window, function key options are:

F1 - Yes Select this option if you want to:
Store the set to the pool directory under the file name specified.

F2 - No Select this option if you want to:
Abort the file saving operation.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Set Window.

Saving Sets

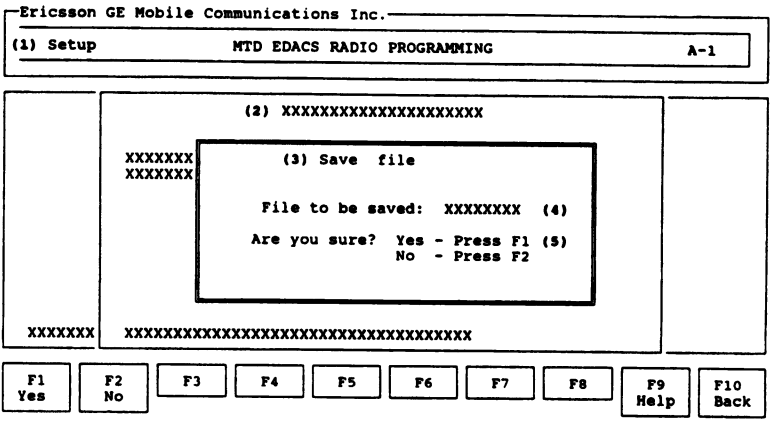
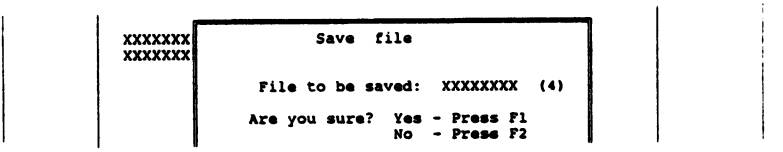


Figure 4-16 - Save File Window

(1)	Function	- indicates function
(2)	Set Window	- indicates current set window
(3)	Window Title	- save file window
(4)	File to be saved	- name to be saved under
(5)	Continue Prompt	- continue or abort option

The Save File Window, shown in Figure 4-16, is accessed whenever you try to exit a Set Window. The purpose for this window is to let you specify the name where the set is to be saved.



File to be saved

(4) The **File to be saved** field is used to specify the name under which the current set is to be saved.

Enter the destination file name. You can use up to eight valid display characters in any alphanumeric combination. This field is an upper case field, therefore all characters will be converted to upper case even if entered in lower case. This field will not accept file names that are not acceptable to DOS.

From the Save File Window, function key options are:

F1 - Yes Select this option if you want to:
Save the set to disk under the file name specified.

F2 - No Select this option if you want to:
Abort the file saving operation.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Set Window.

Modifying Sets

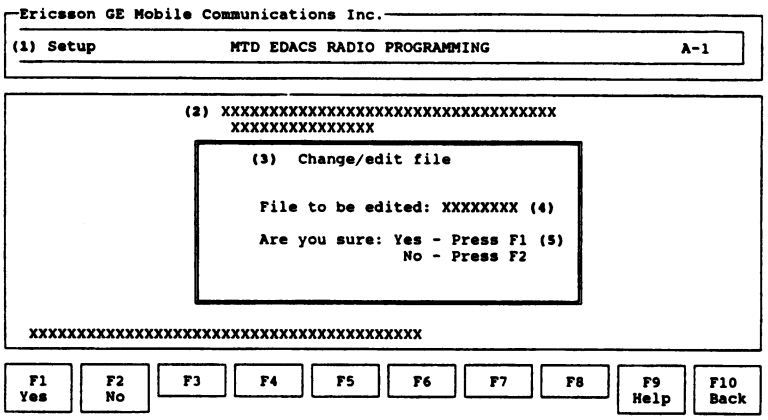


Figure 4-17 - Change/Edit File Window

(1) Function - indicates function
(2) Screen Title - indicates currently defined screen
(3) Window Title - change/edit file window
(4) File to be edited - set to be changed
(5) Continue Prompt - continue or abort option

The Change/Edit file Window, shown in Figure 4-17, is accessed by selecting **F2 Change** while in a Currently Defined Sets Screen. This window is used to change/edit a set residing in the current directory.

File to be edited (4) The **File to Edit** field is used to specify the file name of the set to be edited.

Enter the desired set name. To be valid, this set must be a currently defined set. You can use up to eight valid characters in any alphanumeric combination. This field is an upper case field, therefore all characters will be converted to upper case even if entered in lower case. This field will not accept file names that are not acceptable to DOS.

From the Change/Edit File Window, function key options are:

F1 - Yes Select this option if you want to:
Change the set selected.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Currently Defined Sets Screen.

Deleting Sets

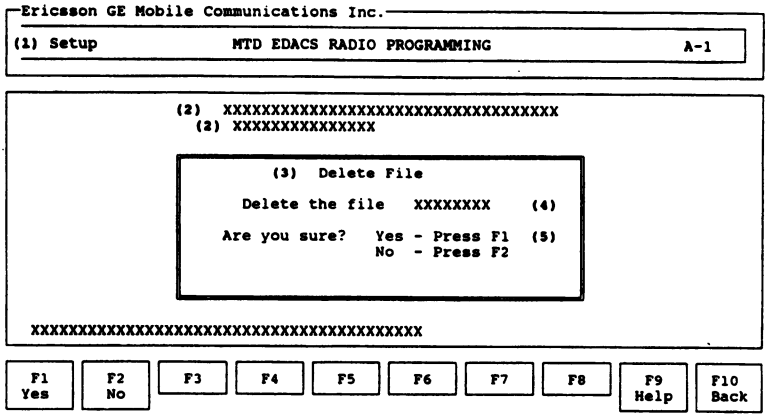


Figure 4-18 - Delete File Window

(1) Function - indicates function
(2) Screen Title - currently defined screen title
(3) Window Title - delete file window
(4) Delete the file - indicates file to be deleted
(5) Continue Prompt - continue or abort option

The Delete File Window, shown in Figure 4-18, is accessed by selecting **F5 Delete** while in a Currently Defined Sets Screen. This window is used to delete a set from the disk.

Delete the file (4) The **Delete the File** field is used to indicate which set you want to delete. (The file name will default to the last highlighted set.)

Enter the desired file name. To be valid, this set must be a currently defined set. This field will accept up to eight characters in any alphanumeric combination. Alphabetic characters will automatically be converted to upper case. This field will not accept file names that are not acceptable to DOS.

From the Delete File Window, function key options are:

F1 - Yes Select this option if you want to:
Delete the set selected.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Currently Defined Sets Screen.

Creating A Personality

Radio Personality

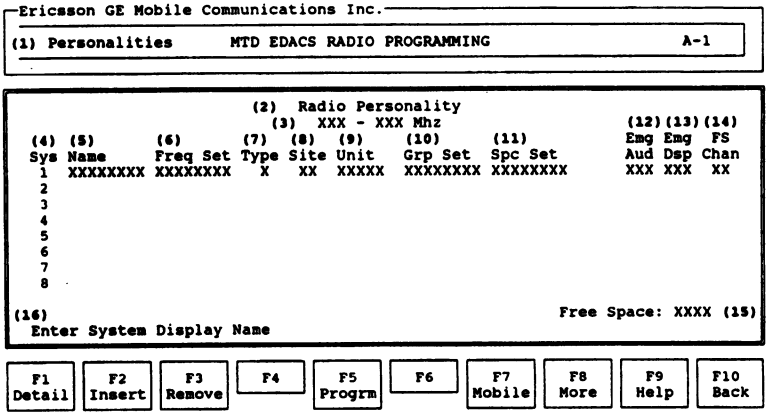


Figure 4-19 - Radio Personality Screen

(1) Function - indicates personalities function
(2) Screen Title - radio personality screen
(3) Band Split - indicates current band split
(4) Sys - indicates system number sequencing
(5) Name - identifies system display name
(6) Freq Set - identifies frequency set
(7) Type - indicates frequency set type
(8) Site - specifies site ID of system
(9) Unit - specifies logical ID of this unit
(10) Group Set - indicates group set
(11) Spc Set - indicates special call set
(12) Emg Aud - emergency audio enable
(13) Emg Dsp - emergency display enable
(14) FS Chan - conventional failsoft channel
(15) Free Space - indicates remaining free space avail
(16) Prompt Line - current field instruction line

The Radio Personality Screen, shown in Figure 4-19, is accessed by selecting **F2 Change** or **F4 New** from the Current Personalities Screen. This is the main data entry screen for programming the radio. It sets many of the parameters of an individual radio and allows access to most others. After you have entered the name of the frequency set to use on this system, the program will pull it in from the data base and will set the state of the type.

When defining a personality, if the entered frequency set is a trunked set, the cursor will advance to the Site field. If the frequency set is conventional, the cursor will not be allowed entry into some of the fields.

To be valid, a trunked system definition requires a trunked frequency set, a site ID, a unit ID, and a group set. However, a conventional system only requires a conventional frequency set.

You can easily insert or remove system definitions by using the **F2 Insert** and **F3 Remove** keys. To insert a system definition place your cursor anywhere on the line where you want the new system definition to appear and press **F2 Insert.** An empty system definition line will appear shifting all the following system definitions one line lower. To delete a system definition line, place your cursor on the system definition you want deleted and press **F3 Remove.** The line you are on will disappear and the line that was just below it will now occupy the space of the deleted line. Thus, all system definitions below the deleted system definition will shift upward one level.

The screen will display up to eight system definitions at a time. Additional system definitions can be accessed by the **Pg Dn** and **Pg Up** keys. Please note that there are 48 system definitions allowed per personality.

Before inserting data in the program, it is recommended that you first fill out the available work sheets in Appendix G of this manual.

NOTE

The steps involved in defining a system consist of the following:

1. Frequency Sets. Frequency Sets must be created before defining a personality.

2. Group Sets Group Sets must be created before defining a personality.

3. Special Call Sets Special Call Sets must be created before defining a personality.

4. System Name. Enter the alphanumeric display name for the system in the Radio Personality Screen. This name will be displayed in the units LCD panel.

5. Frequency Set. Enter the name of the frequency set to be used on this system.

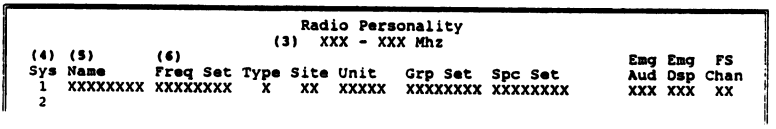
6. Site ID (for trunked frequency sets). Enter the site ID to be used on this system if different than the ID number that automatically appears.

7. Unit ID (for trunked frequency sets). Enter the logical ID (LID) of the unit to be programmed.

8. Group Set (for trunked frequency sets). Enter the name of the group set to be used on this system.

9. Special Call Set (for trunked frequency sets). Enter the name of the special call set to be used on this system.

10 Options. Select the various options associated with this system.



Band Split (3) The **Band Split** field indicates the acceptable frequency range for defining this personality.

This field is a "Display Only" field and is not accessible from this window. The frequency range band split is defined in the Setup portion of the program.

Sys (4) The **System Number** field indicates system number sequencing. During screen entry the cursor skips over this field.

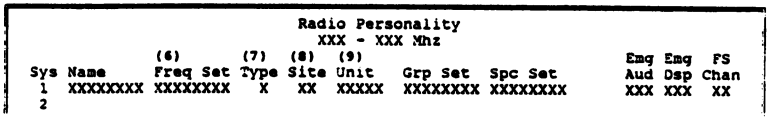
This field is a "Display Only" field and cannot be accessed.

Name (5) The **System Display Name** field is used to specify the radio LCD display name to be entered whenever this system is selected.

Enter the desired system display name. You can use up to eight valid characters in any alphanumeric combination. The characters entered in this field will be converted to upper case even if entered in lower case.

Freq Set (6) The **Frequency Set** field is used to specify the frequency set to use on this system.

Enter the name of the frequency set desired. The frequency set should have already been defined in the Setup portion of the program. If the frequency set has not been defined, you can create a new frequency set while in the Radio Personality Screen by pressing **F8 More** and **F2 Freq**. (For further information regarding frequency set creation, refer to the "Creating Frequency Sets" section in the Setup portion of this manual.)



Freq Set Cont'd

(6) When you enter a frequency set name in the Freq Set field, a search will be made of the personality to find a "matching frequency set name". If found, all frequency set references in this system will refer to the corresponding frequency set. If a match is not found, then a search will be made of the Pool directory. You cannot enter a non-defined frequency set. If you want to replace the existing frequency set with a new frequency set, simply replace the name with the name of a new set. If the replaced set is not used with any other system then it will be deleted from the personality.

NOTES

Only one copy of each frequency set is in the personality. If you modify a frequency set that is used by another system, the changes made will also appear in the other system.

Only a maximum of eight conventional frequency sets are allowed in each personality.

Type

(7) The **Type** field indicates what the type of frequency set is being added to the system.

This field is a "Display Only" field that appears whenever a frequency set name is entered in the Frequency Set field.

There are three possible displays:

- Blank Entry: indicates that the system does not have a frequency set.
- T: indicates that the frequency set added is a trunked system.
- C: indicates that the frequency set added is a conventional system.

Site

(8) The **Site Identification** field specifies the site controller ID number for this trunked frequency system.

Enter a number in the range of 1 - 31 to specify the site ID of the site controller. This number represents the ID that the site will be echoing on the control channel.

NOTE

If the wrong site ID is entered, the radio will not lock onto the control channel. This will prevent the radio from operating on that system causing an out of range indication on the radio.

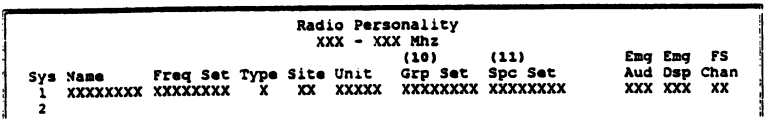
Unit

(9) The **Unit Identification** field specifies the logical ID of the unit while on this system. This ID will be used by the radio on this system for signalling purposes.

Enter a number in the range of 1 - 16382 to represent the logical ID of this unit. The system will use the LID for determining authorizations, restrictions, and call sequencing.

NOTE

Duplicating logical IDs on the system will cause improper system operation. Therefore, it is extremely important that unit numbers are controlled.



Grp Set (10) The **Group Set** field is used to specify the group set to use on this system.

Enter the name of the group set desired. The group set should have already been defined in the Setup portion of the program. If the group set has not been defined previously, you can create a new group set while in the Radio Personality Screen by pressing **F8 More** and **F3 Group**. (For information regarding group set creation, refer to the "Creating Group Sets" section in the Setup portion of this manual.)

When you enter a group set name, a search will be made of the personality to find a "matching group set name". If found, all group set references in this system will refer to the corresponding group set. If a match is not found, then a search will be made of the Pool directory. You cannot enter a non-defined group set. If you want to replace the existing group set with a new group set, simply replace the name with the name of a new set. The new set must exist either in the personality or in the Pool directory.

NOTE

There is only one copy of each group set in the personality. When you modify a set that is used by another system, those changes will also appear in the other system.

Spc Set (11) The **Special Call Set** field is used to specify the special call set to use on this system.

Enter the name of the special call set desired. The special call set should have already been defined in the Setup portion of the program. If the special call set has not been previously defined, you can create a new special call set while in the Radio Personality Screen by pressing **F8 More** and **F6 SpCall**. (For further information regarding special call set creation, refer to the "Creating Special Call Sets" section in the Setup portion of this manual.)

When you enter a special call set name, a search will be made of the personality to find a "matching special call set name". If found, all special call set references in this system will refer to the corresponding special call set. If a match is not found, then a search will be made of the Pool directory. You cannot enter a non-defined special call set. If you want to replace the existing special call set with a new special call set, simply replace the name with the name of a new set. The new set must exist either in the personality or in the Pool directory.

NOTES

There is only one copy of each special call set in the personality. When you modify a special call set that is used by another system, those changes will also appear in the other system.

A maximum of seven unique special call sets are allowed in each personality.

```
                          Radio Personality
                            XXX - XXX Mhz                    (12)(13)(14)
                                                             Emg Emg  FS
Sys Name     Freq Set Type Site Unit   Grp Set  Spc Set      Aud Dsp Chan
 1  XXXXXXXX XXXXXXXX   X   XX  XXXXX  XXXXXXXX XXXXXXXX     XXX XXX  XX
 2
```

Emg Aud (12) The **Emergency Audio** field allows the radio to produce audio when declaring an emergency from the radio.

Using the **TAB** key as a toggle switch, select "On" or "Off". "On" allows the radio to leave audio enabled whenever an emergency is declared from the radio. "Off" disables audio whenever an emergency is declared from the radio until the emergency is cleared or push-to-talk is depressed on the unit.

Emg Dsp (13) The **Emergency Display** field allows the radio to produce a visual display when declaring an emergency from the radio.

Using the **TAB** key as a toggle switch, select "On" or "Off". "On" allows the radio to produce a visual display when an emergency is declared from the radio. This display will continue until the emergency is cleared or push-to-talk is depressed on the unit. "Off" disables the emergency visual display.

FS Chan (14) The **Failsoft Channel** field is used to indicate which channel the unit should tune to should the system fall into conventional failsoft mode.

Enter the desired valid channel number on the system or leave this field blank. Entering a number will cause the unit to go to the specified channel should the system fall into failsoft mode. Leaving this field blank will disable the failsoft channel operation.

Free Space (15) The **Free Space** field indicates remaining free space available for creating this personality.

This field is a "Display Only" field and cannot be accessed.

The appearance of this window is controlled through the Free Space Calculation field in the Environment Settings Window.

From the Radio Personality Screen, function key options are:

F1 - Detail Select this option if you want to:
View or modify frequency set, group set, or special call set definitions.

F2 - Insert Select this option if you want to:
Insert a new line for a system set definition.

F3 - Remove Select this option if you want to:
Remove a system set definition line.

F5 - Progrm Select this option if you want to:
Download the personality into a radio.

F7 - Mobile Select this option if you want to:
Define options associated with a mobile unit.

F8 - More Select this option if you want to:
View additional functions.

When the F8 - More key is selected, the following additional functions are available:

F2 - Freq Select this option if you want to:
Create, delete, or modify frequency sets.

F3 - Group Select this option if you want to:
Create, delete, or modify group sets.

F4 - Text Select this option if you want to:
Enter text associated with the personality.

F6 - SpCall Select this option if you want to:
Create, delete, or modify special call sets.

F7 - SysScn Select this option if you want to:
Define the wide area system scan table.

F8 - More Select this option if you want to:
View previous radio personality functions.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

Detailing Sets

While working in the Radio Personality Screen, you may want to view or modify a frequency set, a group set, or a special call set. To do this, place your cursor on the Freq Set field, Grp Set field, or Spc Set field and select **F1 Detail**. The corresponding window will appear.

When the window is brought up you can make any necessary adjustments, i.e., adding a new line definition or modifying an already existing definition. If you want these changes to affect only the radio personality currently being programmed, simply select **F10 Back** to return to the Radio Personality Screen. These changes will only apply to the particular radio personality currently being edited and will not affect any information stored in the Pool directory. However, if you want to change the set permanently, select **F5 Store** to save the changes to disk before returning to the Radio Personality Screen.

Mobile Radio Options

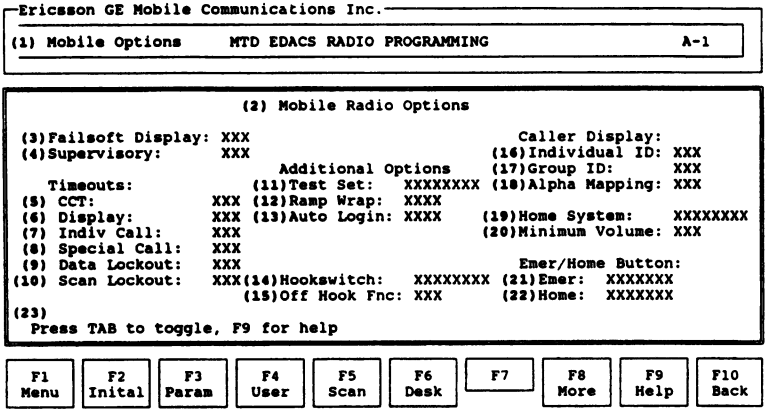


Figure 4-20 - Mobile Radio Options Window

(1) Function - indicates mobile options function
(2) Window Title - mobile radio options window
(3) Failsoft Display - enables failsoft display indicator
(4) Supervisory - indicates supervisory classification
(5) CCT - time before transmission drops
(6) Display - sets time before display time out
(7) Indiv Call - sets individual call time out period
(8) Special Call - specifies special call time out time
(9) Data Lockout - indicates data call lockout time
(10) Scan Lockout - indicates scan lockout time
(11) Test Set - identifies conventional freq set
(12) Ramp Wrap - enables radio setting wrap around
(13) Auto Login - allows radio to generate login msg
(14) Hookswitch - indicates hookswitch type to be used
(15) Off Hook Fnc - enables scanning with mic off hook
(16) Individual ID - allows ID display during indiv calls
(17) Group ID - allows ID display during group calls
(18) Alpha Mapping - indicates call display association
(19) Home System - assigns home/emerg function display
(20) Minimum Volume - sets lowest volume setting for radio
(21) Emer - specifies emergency switch function
(22) Home - determines where emergency declared
(23) Prompt Line - current field instruction line

The Mobile Radio Options Window, shown in Figure 4-20, is accessed by selecting **F7 Mobile** while in the Radio Personality Screen. This window allows you to select specific options associated with mobile radios.

Failsoft Display (3) The **Failsoft Display** field allows a failsoft indicator to appear on the unit whenever the site falls into failsoft mode.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" causes failsoft to appear in the radio display whenever the system falls into failsoft mode. "No" prevents the failsoft display.

Supervisory (4) The **Supervisory** field is used to indicate whether or not the radio has the ability to clear emergencies on the system and clear group calls with the CLR button.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". A "Yes" value indicates that the radio is a supervisory radio with emergency clearing privilege.

CCT (5) The **Carrier Control Timer** field indicates the radio carrier control time. The carrier control timer ensures that the radio will not continuously transmit over a specific amount of time.

Enter a value here in the range of 0 - 250 in 10 second intervals. This value causes the radio to automatically drop a channel when the transmission period exceeds the specified period.

Display Timeout (6) The **Display Time Out** field is used to specify a temporary radio display time out period.

```
   Timeouts:                Test Set:   XXXXXXXX     Alpha Mapping: XXX
     CCT:            XXX    Ramp Wrap:  XXXX
(6)  Display:        XXX    Auto Login: XXXX         Home System:     XXXXXXXX
(7)  Indiv Call:     XXX                             Minimum Volume:  XXX
(8)  Special Call:   XXX
(9)  Data Lockout:   XXX                             Emer/Home Button:
(10) Scan Lockout:   XXX    Hookswitch:   XXXXXXXX     Emer:  XXXXXXX
                            Off Hook Fnc: XXX          Home:  XXXXXXX
```

Display Timeout Cont'd (6) Enter a value here in the range of 0 to 7.5 seconds in .5 second intervals. The temporary radio display will disappear after this time out period is exceeded.

Indiv Call Timeout (7) The **Individual Call Time Out** field is used to specify the length of time between push-to-talks before the radio drops an individual call.

Enter a time between 0 and 75 seconds in 5 second intervals to indicate the desired time out period.

> **NOTE**
>
> All radios should have the same time out period. If two radios have different time out periods, one will return to the group setting while the other will still appear to be in an individual call.

Special Call Timeout (8) The **Special Call Time Out** field is used to specify the length of time between push-to-talks before the radio drops a special call.

Enter a time between 0 and 75 seconds in 5 second intervals to indicate the desired time out period. Selection of "0" will disable the special call timer.

> **NOTE**
>
> You will want to coordinate the individual call time out with the special call time out.

Future implementation of this feature forthcoming.

Data Lockout Timeout

(9) The **Data Lockout Time Out** field is used to specify how long the radio will lock out data calls once a voice call has been received to allow for continuity of conversation.

Enter a value of "0", "5", "10", or "20" seconds to indicate the desired data lock out time out period. Entering "0" will disable the timer. Selection of "5", "10", or "20" will cause the radio to lock out data calls after receiving a voice call for the specified period.

NOTE

Emergency calls are exempt from data lock out.

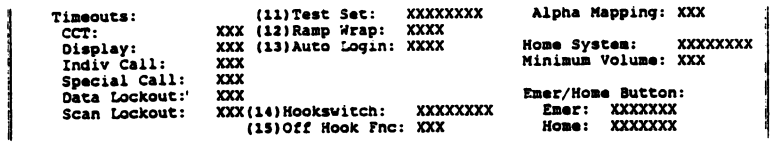
Scan Lockout Timeout

(10) The **Scan Lock Out Time Out Period** field is used to indicate the length of time that scanned voice calls are locked out after receiving a data call to allow for subsequent data calls to be received.

Enter a value of "0", "5", "10", or "20" seconds to indicate the desired scan lock out time out period. Entering "0" causes the radio to lock out scanned voice calls after receiving a data call for the specified timer value, or three times the specified value if sending data.

NOTE

Selected group calls, individual calls, and emergency calls are exempt from this lock out.



Test Set (11) The **Conventional Test Set** field is used to indicate the conventional test set to use for test modes.

Enter the desired conventional test set. The test set must exist in the personality or reside in the Pool directory to be valid.

Ramp Wrap (12) The **Ramp Wrap** field is used to indicate whether or not the radio should wrap around the system and group knob settings.

Using the **TAB** key as a toggle switch, select "On" or "Off". Selecting "On" indicates that once the highest system/group has been reached, the next advance will cause the first system/group to appear. Selecting "Off" indicates that when the system or group control is advanced to the highest system/group, advancement discontinues.

Auto Login (13) The **Auto Login** field is used to indicate whether or not the radio is to generate a log in message when entering a new system.

Using the **TAB** key as a toggle switch, select "On" or "Off". Selecting "On" causes the radio to generate a log in message upon locating the control channel of a new system. Selecting "Off" prevents the radio from generating a log in message when the control channel of a new system is located.

NOTE

When logging in to a system, access to special calls is denied.

Hookswitch (14) The **Hookswitch** field is used to specify the type of hookswitch that will be used with the radio.

Using the **TAB** key as a toggle switch, select between "Normal" and "Inverted". Selection of "Normal" indicates that the radio will be used with GE standard microphones.

Off Hook Fnc (15) The **Off Hook Function** field determines whether the radio is to scan or operate data while the microphone is off hook.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" allows the radio to scan or operate data even when the microphone is removed from the hookswitch. Selecting "No" causes the radio to halt or suspend scanning until the microphone is returned to the hookswitch.

NOTE

The hookswitch will continue to work normally for clearing special and individual calls.

```
Supervisory:      XXX                          (16)Individual ID: XXX
                          Additional Options    (17)Group ID:      XXX
Timeouts:                  Test Set:   XXXXXXXX (18)Alpha Mapping: XXX
 CCT:             XXX      Ramp Wrap:  XXXX
 Display:         XXX      Auto Login: XXXX     (19)Home System:    XXXXXXXX
 Indiv Call:      XXX                           (20)Minimum Volume: XXX
 Special Call:    XXX
 Data Lockout:    XXX                                 Emer/Home Button:
 Scan Lockout:    XXX      Hookswitch:   XXXXXXXX (21)Emer:  XXXXXXX
                           Off Hook Fnc: XXX      (22)Home:  XXXXXXX
```

Individual ID

(16) The **Individual ID Caller Display** field is used to determine whether the radio will display the originator's ID during individual calls.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" causes the radio to display the caller's individual ID during all individual calls.

Group ID

(17) The **Group ID Caller Display** field is used to determine whether the unit will display the originating unit's ID during group calls.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" indicates that the unit will display the caller's ID during all group conversations.

Alpha Mapping

(18) The **Alpha Mapping** field is used to determine how the caller display will be indicated in the selected system.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" causes the caller display to be associated with a name in the special call list. Selecting "No" indicates that the caller display will be numeric.

Home System

(19) The **Home System** field is used to indicate the name of the system that will be used when the home/emergency function is activated.

Specify the desired home system name. To be valid this name must exist as a system name in the current personality.

Minimum Volume (20) The **Minimum Volume** field is used to specify the lowest volume level that the radio will allow.

Enter a value between 0 and 15 to indicate the lowest volume allowed. Entering a non-zero value will prevent the radio from being ramped below that level.

Emergency (21) The **Emergency Button** field is used to indicate how the emergency switch on the radio is used.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" enables the emergency switch, causing it to declare an emergency on the home or current group (depending on the selection in the following Home field). "Disable" causes the emergency key to act as a home function key and not as an emergency key.

Home (22) The **Home Button** field is used to define the Home key or specify where an emergency will be declared.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable".

- When the above Emergency field is enabled, then selection of "Enable" in this field causes an emergency to be declared on the Home Group. "Disable" causes the emergency to be declared on the current group.
- When the above Emergency field is disabled, then selection of "Enable" in this field will enable the Home key. "Disable" disables the Home key.

From the Mobile Radio Options Window, function key options are:

F1 - Menu Select this option if you want to:
Define menu options.

F2 - Inital Select this option if you want to:
Set the initial radio state.

F3 - Param Select this option if you want to:
Define various radio parameters.

F4 - User Select this option if you want to:
Set the user control options.

F5 - Scan Select this option if you want to:
Modify conventional scan options.

F6 - Desk Select this option if you want to:
Define desk top options.

F8 - More Select this option if you want to:
View additional functions.

When the F8 - More key is selected, the following additional functions are available:

F1 - Agency Select this option if you want to:
Define agency partition data associated with the current personality only.

F3 - Stat Select this option if you want to:
Define status keypad information.

F4 - MSG Select this option if you want to:
Define message keypad information.

F8 - More Select this option if you want to:
View previous mobile radio option functions.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Radio Personality Screen.

Mobile Radio Menu Options

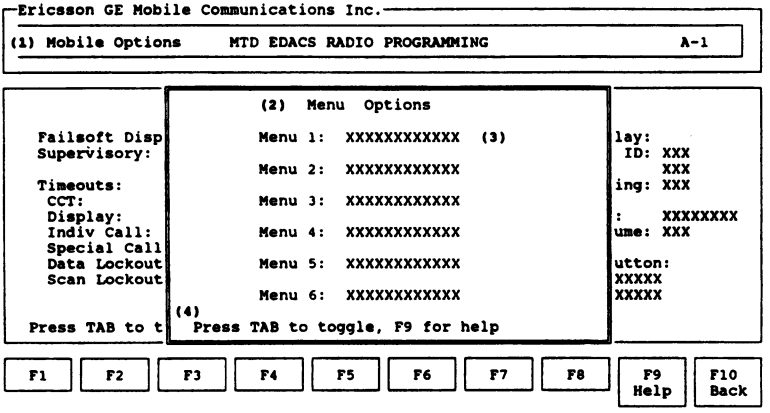
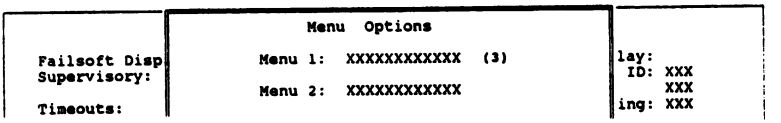


Figure 4-21 - Menu Options Window

(1) Function - indicates mobile options function
(2) Window Title - menu options window
(3) Menu 1 - 6 - defines menu keys
(4) Prompt Line - current field instruction line

The Menu Options Window, shown in Figure 4-21, is accessed by selecting **F1 Menu** while in the Mobile Options Window. This window allows you to define menu options associated with the mobile unit.



Menu 1 - 6 (3) The **Menu 1 - 6 Options** fields determine how the menu keys will operate.

Using the **TAB** key as a toggle switch, select the desired menu setting for each of the six menu option fields. Possible menu settings are: "Disabled", "Special", "Scan On/Off", "Scan Add/Del", "Ext Alarm", "Status" and "Message".

Disabled - disables this menu key.

Special - allows the user to select special calls that are stored in the personality.

Scan On/Off - allows the user to determine whether or not to allow scanning on the radio.

Scan Add/Del - allows the user to add or delete from the existing scan list.

Ext Alarm - allows user to control operation of the external alarm.

Status - allows the user to select the Status Menu.

Message - allows the user to select the Message Menu.

From the Menu Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio Initial Settings

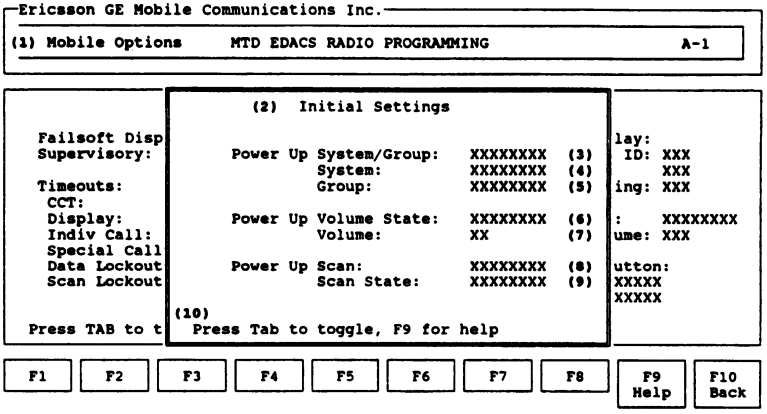
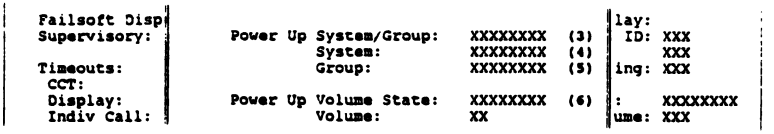


Figure 4-22 - Initial Settings Window

(1) Function - indicates mobile options function
(2) Window Title - initial settings window
(3) Power Up System/Group - initial system/group power up
(4) System - specifies initial system
(5) Group - identifies initial group
(6) Power Up Volume State - initial power up volume setting
(7) Volume - denotes initial volume setting
(8) Power Up Scan - initial power up scan setting
(9) Scan State - identifies scan state
(10) Prompt Line - current field instruction line

The Initial Settings Window, shown in Figure 4-22, is accessed by selecting **F2 Inital** while in the Mobile Radio Options Window. From this window you can define the initial radio state. These settings only affect the after programming state and should not be confused with the power up state of the radio.



Power Up System/ Group

(3) The **Power Up System/Group** field is used to indicate how the radio will power up on the system/group.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" causes the radio to power up on a predefined system/group whenever power is applied to the radio. Selection of "Disable" will cause the radio to power up on the last system/group selected.

The state of this field will cause the System and Group fields to appear or disappear. When "Enable" is selected, System and Group fields appear allowing data entry. When "Disable" is selected, these fields will not appear.

System

(4) The **System field** is used to specify the system that the radio selects when power is first applied.

Enter the desired initial system name. This field will accept any combination of alphanumeric characters up to eight characters in length. To be valid, this entry must match a system defined in the current Radio Personality Screen.

This field will not appear unless "Enable" has been selected in the Power Up System/Group field.

Group (5) The **Group field** is used to specify the initial group (for trunked systems), or channel (for conventional systems), that the radio selects when power is first applied.

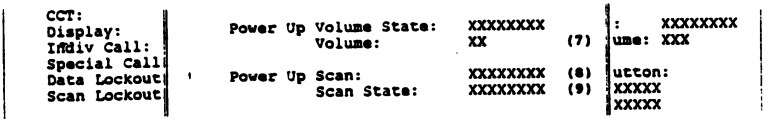
Enter the desired initial group. This field will accept any combination of alphanumeric characters up to eight characters in length. To be valid, this entry must match a group or channel name in the currently defined system.

This field will not appear unless "Enable" has been selected in the Power Up System/Group field.

Power Up Volume State (6) The **Power Up Volume State** field is used to indicate whether the radio will power up on a predefined volume setting or on the last volume setting.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" causes the radio to power up on a predefined volume setting each time power is applied to the radio. "Disable" allows the radio to power up on the last volume setting selected.

The state of this field will cause the Volume field to appear or disappear. When "Enable" is selected, the Volume field will appear, allowing data entry. When "Disable" is selected, this field will not appear.



Volume (7) The **Initial Volume** field is used to specify the volume setting that the radio selects when power is first applied.

Enter the desired volume level. To be valid, this entry must be in the range of 0 - 15. Entering a non-zero value will prevent the radio from being ramped below that level.

This field will not appear unless "Enable" has been selected in the Power Up Volume State field.

Power Up Scan (8) The **Power Up Scan** field is used to determine if the radio will be in a predefined scan state or in the last scan state when powered up.

Using the **TAB** key as a toggle switch, select "Enable" or "Disable". Selecting "Enable" causes the radio to power up in a predefined scan state. Selecting "Disable" causes the radio to power up in the last scan state.

The state of this field will cause the Scan State field to appear or disappear. When "Enable" is selected, the Scan State field will appear, allowing data entry. When "Disable" is selected, this field will not appear.

Scan State (9) The **Scan State** field is used to indicate whether or not the radio will operate in a scan state.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" allows the user to select whether or not the radio will operate in a scan state. Selecting "Disable" prevents the user from selecting or deselecting the scan function on the radio.

This field will not appear unless "Enable" has been selected in the Power Up Scan field.

From the Initial Settings Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio Parameters

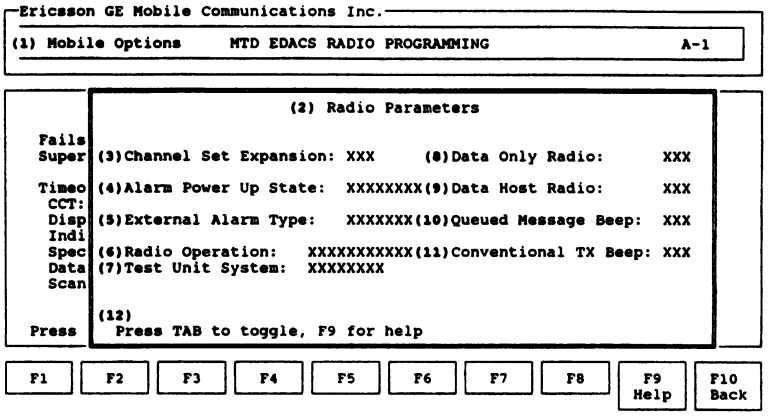


Figure 4-23 - Radio Parameters Window

(1) Function - indicates mobile options function
(2) Window Title - radio parameters window
(3) Channel Set Expansion - allows channel set expansion
(4) Alarm Power Up State - sets indiv call alarm power up state
(5) External Alarm Type - sets radio response to indiv call
(6) Radio Operation - indicates how radio is to be used
(7) Test Unit System - identifies test unit system name
(8) Data Only Radio - prevents voice call reception
(9) Data Host Radio - enables radio to act as an RF host
(10) Queued Message Beep -
(11) Conventional TX Beep - enables PTT beep in convent. mode
(12) Prompt Line - current field instruction line

The Radio Parameters Window, shown in Figure 4-23, is accessed by selecting **F3 Param** while in the Mobile Radio Options Window. This window is used to specify parameters that define radio configuration or usage.

Channel Set Expansion (3) The Channel Set Expansion field is used to indicate whether or not the radio can use control channel messages to update a trunked frequency set.

Using the **TAB** key as a toggle switch, select between "On" and "Off". Selection of "On" indicates that "over-the-air" channel set expansion set is enabled. "Off" disables the function.

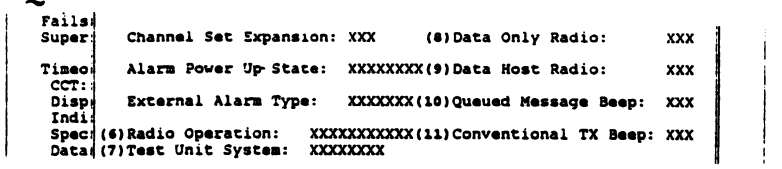
Alarm Power Up State (4) The **Alarm Power Up State** field is used to indicate the power up state of the individual call alarm.

Using the **TAB** key as a toggle switch, select between "Enabled" and "Disabled". Selection of "Enabled" causes the radio to always power up with the individual call alarm set so that the external alarm triggers upon receipt of any individual calls. "Disabled" prevents the external alarm trigger.

External Alarm Type (5) The **External Alarm Type** field is used to determines the radio alarm pulse when an individual call is received.

Using the **TAB** key as a toggle switch, select between "1 Pulse", "3 Pulse", and "Call Ind".

- 1 Pulse - causes the radio to generate a one second pulse whenever an individual call is received.
- 3 Pulse - causes the radio to generate three 1/2 second pulses whenever an individual call is received.
- Call Ind - causes the radio to generate an alarm pulse following to the call indicator.



Radio Operation

(6) The **Radio Operation** field is used to indicate how the radio is to be used.

Using the **TAB** key as a toggle switch, select between "Normal", "Test Unit", "Stand Alone", and "CC Mon".

- Normal - causes normal radio operation.
- Test Unit - causes the radio to operate as a test unit. The radio is configured for local operation and is connected to the site controller.
- Stand Alone - causes the radio to operate as a stand alone test unit.
- CC Mon - causes the radio to act as a monitor receiver for the site voter equipment and, as such, will not decode any calls.

The selection in this field has direct control on the state of the Test Unit System field. Whenever "Test Unit" is selected, the Test Unit System field will appear allowing data entry. Selection of any other Radio Operation type prevents Test Unit System field entry.

Test Unit

(7) The **Test Unit** field is used to specify the name of the system that will act as a test unit by this radio.

Enter the desired system name to be used as the test unit. This field will accept any combination of alphanumeric characters, up to eight characters in length. To be valid, this entry must match the name of

a system defined in the current personality.

This field will not appear unless "Test Unit" has been selected in the Radio Operation field.

Data Only Radio (8) The **Data Only Radio** field indicates whether or not voice calls can be received by the radio.

Using the **TAB** key as a toggle switch, select between "Yes" and "No" values. A "Yes" value prevents the radio from receiving voice calls and indicates that the radio is intended for data operation only. A "No" value enables the radio to receive voice calls.

This field should be set to "Yes" if the Data Host Radio field is to be enabled.

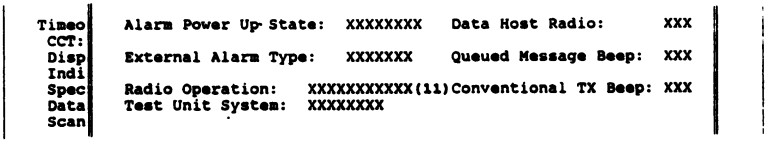
Data Host Radio (9) The **Data Host Radio** field indicates whether or not the radio will act as an RF-host.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" allows the radio to be operated as a data host.

If "Yes" is selected, the Data Only Radio field should also be enabled.

Queued Message Beep (10) The Queued Message Beep field

Enter the desired time. To be valid, this field must be in a range of 0 - 510 milliseconds.



Conven. TX Beep

(11) The **Conventional Transmit Beep** field is used to determine whether or not there will be a beep sounded whenever the push-to-talk is pressed in conventional mode.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selection of "Yes" causes a beep to be generated when push-to-talk is pressed in conventional mode. Selection of "No" prevents a beep from sounding whenever push-to-talk is pressed in conventional mode.

From the Radio Parameters Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio User Control Options

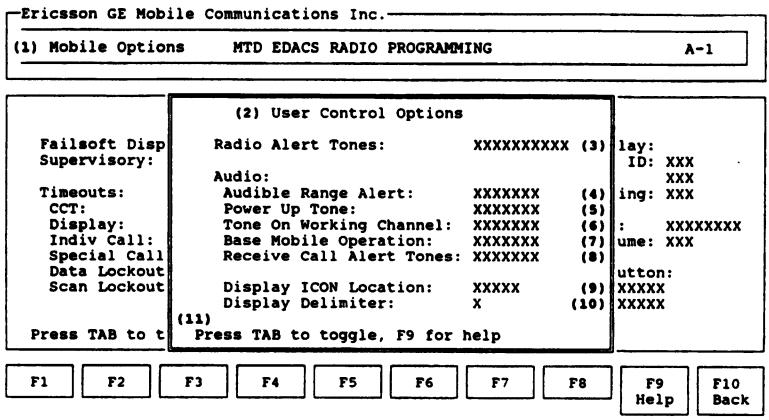
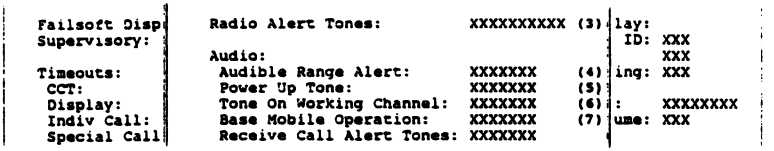


Figure 4-24 - User Control Options Window

(1) Function - indicates mobile options function
(2) Window Title - user control options window
(3) Radio Alert Tones - specifies alert tone for radio
(4) Audible Range Alert - enables out of range audible alert
(5) Power Up Tone - enables power up tone
(6) Tone on Working Channel - allows working channel go-ahead tone
(7) Base Mobile Operation - enables base mobile operation
(8) Receive Call Alert Tones - enables alert tone for receive calls
(9) Display ICON Location - sets display ICON location
(10) Display Delimiter - marks between ICON & rest of display
(11) Prompt Line - current field instruction line

The User Control Options Window, shown in Figure 4-24, is accessed by selecting **F4 User** while in the Mobile Radio Options Window. This window is used to select user control options associated with the radio.



Radio Alert Tones (3) The **Radio Alert Tones** field determines what type of alert tones the radio will use.

Using the **TAB** key as a toggle switch, select between "Single" and "Continuous". Selecting "Single" causes the radio to generate single sets of alert tone sequences. The radio call denied beep will be a single low frequency beep. When "Continuous" is selected, the radio will repeat certain alert tones when the push-to-talk is held. The call denied beep will consist of four short low frequency beeps in a row.

Audible Range Alert (4) The **Audible Range Alert** field specifies whether or not the radio will sound an alarm whenever the radio is out of audible range.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" causes the radio to sound an alarm whenever the radio is out of audible range. "Disable" prevents the alarm from sounding.

Power Up Tone (5) The **Power Up Tone** field is used to indicate whether or not a tone will sound after the radio power up self test has been performed.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" causes a tone to sound whenever the radio power-up self test has been completed. "Disable" prevents the tone from being produced.

Tone on Working Channel

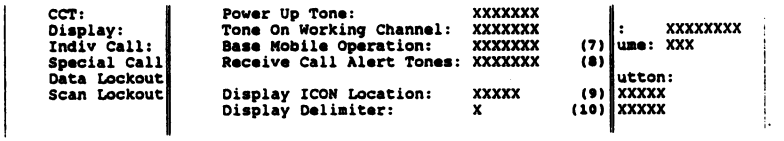
(6) The **Tone on Working Channel** field is used to indicate whether or not the radio will produce an audible tone whenever the radio working channel go-ahead is enabled.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" causes the radio to produce an audible tone whenever the radio working channel go-ahead is enabled. "Disable" prevents the tone from being produced.

Base Mobile Operation

(7) The **Base Mobile Operation** field is used to indicate whether or not base/mobile operation will be enabled.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" indicates the radio will be used in Base/Mobile operation with Group 1 encode group and Group 2 decode group. "Disable" indicates normal operation for groups.



Base Mobile Operation Cont'd (7)

NOTE

If this field is set at "Enable" the following steps need to be taken:

- Set Auto Login field, in the Mobile Options Window, to "Off". The radio should not be able to generate a log in message.
- Set the Group 1 Type field, in the Group Set Summary Window, to "Encode". MTD will encode Group 1 and only Group 1 will be selectable.
- Set the Group 2 Type field, in the Group Set Summary Window, to "Normal". (A group other than Group 2 can be selected here.)
- Designate Group 2 as the Home Group, in the Group Options Window. (If a group other than Group 2 has "Normal" selected in the Type field, this group can be used as the Home Group instead of Group 2.)

Receive Call Alert Tones (8) The **Receive Call Alert Tones** field is used to indicate whether or not a tone will sound when an incoming group call is received.

Using the **TAB** key as a toggle switch, select between "Enable" and "Disable". Selecting "Enable" causes an alarm to sound when an incoming group call is received. "Disable" prevents the tone from being produced.

Display ICON Location (9) The **Display ICON Location** field is used to specify where the ICON is to be located on the radio display.

Using the **TAB** key as a toggle switch, select between "Left" and "Right". Selecting "Left" causes the ICON in the alpha display to appear in the left portion of the radio display. Selecting "Right" causes the ICON in the alpha display to appear in the right portion of the radio display.

Display Delimiter (10) The **Display Delimiter** field is used to specify the character to be used between ICONs and the balance of the display.

Enter the desired delimiter character to appear on the radio display. This field will accept one keyboard character.

From the User Control Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio Scan Options

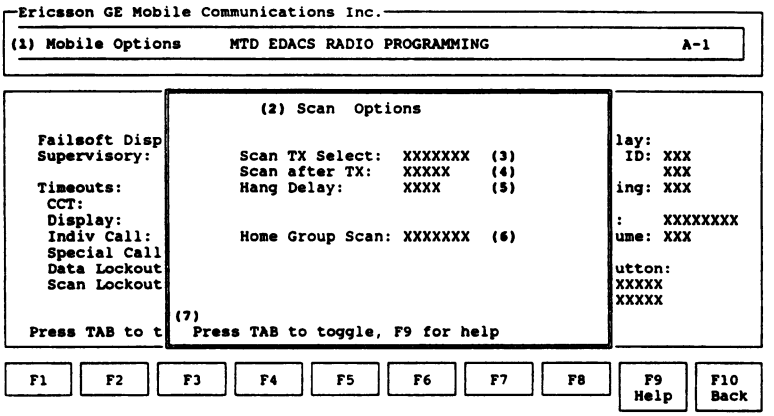


Figure 4-25 - Scan Options Window

(1) Function - indicates mobile options function
(2) Window Title - scan options window
(3) Scan TX Select - shows PTT to key on select grp/chan
(4) Scan after TX - shows if scan after tx is enabled
(5) Hang Delay - indicates Rx time radio is on scan
(6) Home Group Scan - enables home group scan option
(7) Prompt Line - current field instruction line

The Scan Options Window, shown in Figure 4-25, is accessed by selecting **F5 Scan** while in the Mobile Radio Options Window. This window is used to set the various scan options associated with conventional scan.

Scan TX Select (3) The **Scan TX Select** field is used to indicate whether or not push-to-talk always keys on a selected group/channel.

Use the **TAB** key to toggle between "Selected" and "Autoselect". "Selected" indicates push-to-talk will always key on the selected group/channel. "Autoselect" indicates push-to-talk will automatically select a scanned call with the display showing the channel name.

Scan after TX (4) The **Scan after Transmit** field indicates whether or not the radio will resume scan operations after transmission.

Selection of this field is through toggling the **TAB** key between "Active" and "Off". "Active" causes the radio to resume scanning after transmission. "Off" turns off scan after the transmit function.

Hang Delay (5) The **Hang Delay** field is used to specify the amount of time the radio will remain on the scan channel after receiving a scanned call and before resuming the scan operation.

Enter the desired hang time, between 0 and 15.5 in .5 second intervals. This value causes the radio to hang on the scanned call for the specified amount of time before resuming scan.

Home Group Scan (6) The **Home Group Scan** field is used to indicate whether or not the home group is automatically scanned.

Using the **TAB** key as a toggle switch, select between "Auto" and "Decoded". "Auto" indicates that the home group will be decoded regardless of the scan on state. "Decoded" indicates that the home group is not automatically scanned.

From the Scan Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio Desk Top Options

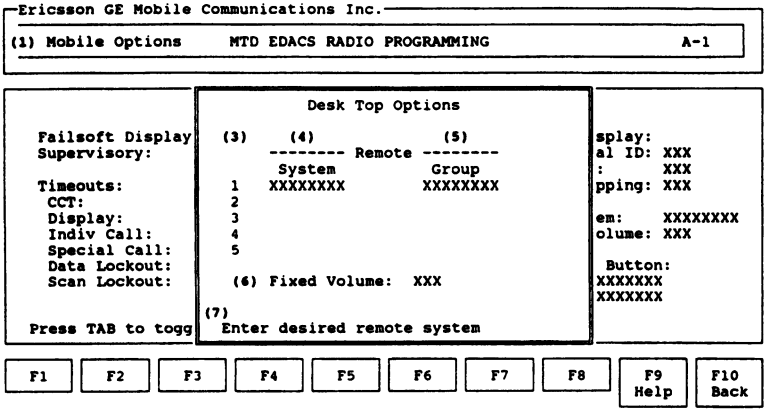


Figure 4-26 - Desk Top Options Window

(1) Function - indicates mobile options function
(2) Window Title - desk top options window
(3) Channel - positional channel indicator
(4) Remote System - specifies remote system for RCN 1000
(5) Remote Group - specifies remote group for RCN 1000
(6) Fixed Volume - enables a fixed volume setting
(7) Prompt Line - current field instruction line

The Desk Top Options Window, shown in Figure 4-26, is accessed by selecting **F6 Desk** while in the Mobile Radio Options Window. This window allows you to specify remote system and group information for the radio.

Remote System (4) The **Remote System** field is used to define the remote system to use for this function on the RCN 1000.

Enter the desired remote system. The name entered here must be the name of one of the first 31 currently defined systems in the Radio Personality Screen. This field will not accept system names with system numbers greater than 31.

Remote Group (5) The **Remote Group** field is used to define the remote group/channel ID to use for this special function on the RCN 1000.

Enter the desired remote group. The name entered here must be the name of a currently defined group/channel within the associated system.

Fixed Volume (6) The **Fixed Volume** field is used to enable or disable the volume up/down keys.

Using the **TAB** key as a toggle switch, select between "Yes" and "No". Selecting "Yes" disables the volume up/down keys and causes the remote system and remote group to operate at a fixed volume. Selecting "No" enables the volume up/down keys.

NOTE

This option should be set to "Yes" for Desktop Station operation.

From the Desk Top Options Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio Agency Partition Data

Selecting **F8 More** and then **F1 Agency** while in the Mobile Radio Options Window will enable you to define agency partition data associated with the current personality. The data entered in this window will supersede data entered in the setup portion of the program for the current personality only. For information regarding window structure, refer to the Agency Partition Data section in the Setup portion of this manual.

CAUTION

Because the use of an agency structure creates certain limitations within your system, we recommend that you thoroughly understand the agency hierarchy and how to optimize its use before establishing any agencies on your system.

NOTE

The information entered in this window is the default for the current personality only. Changing this information will not change other existing personalities. Changing the agency/fleet/subfleet partitioning in the current personality will not change the agency default information entered in the setup portion of the program.

Mobile Radio Status

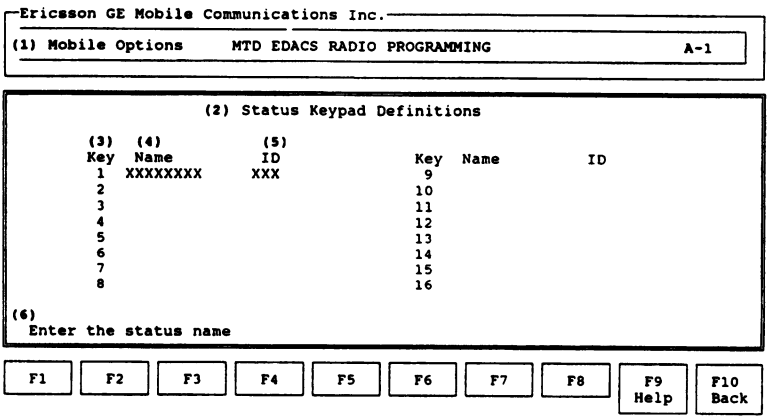
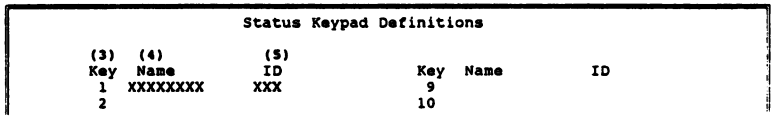


Figure 4-27 - Status Keypad Definitions Window

(1) Function - indicates mobile options function
(2) Window Title - status keypad definition window
(3) Key - positonal key indicator
(4) Name - indicates alphanumeric name
(5) ID - defines status keypad ID number
(6) Prompt Line - current field instruction line

The Status Keypad Definitions Window, shown in Figure 4-27, is accessed by selecting **F8 More** and **F3 Stat** from the Mobile Radio Options Window. This window lets you define the numeric keypad status ID for mobile units.



Key (3) The **Key** field is used to identify the numeric keypad key.

This field is for "Display Only" and cannot be accessed.

Name (4) The **Status Name** field is used as an alphanumeric indicator that will be displayed whenever the numeric key is pressed.

To define the name field, type in the characters desired. You can use up to eight valid characters in any alphanumeric combination. This field is an upper case field and all characters will be converted to upper case even if entered in lower case.

ID (5) The **Status Identification** field is used to indicate the status ID of the numeric keypad key. This number will be transmitted to the trunked system when requested by the site.

Enter a number in the range of 0 - 128 to indicate the desired status ID number.

From the Status Keypad Definitions Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Mobile Radio Message

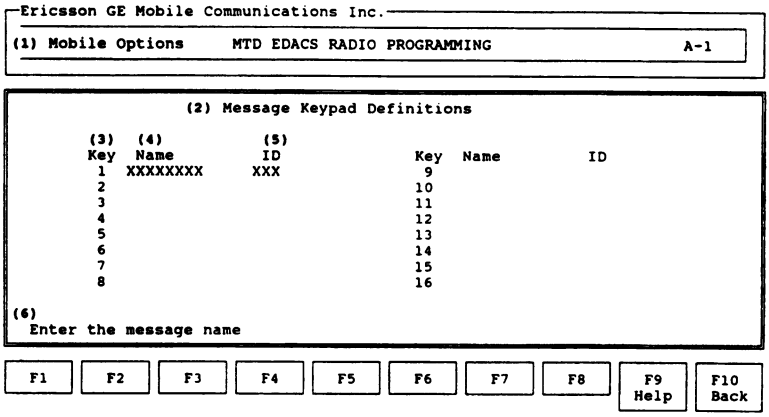
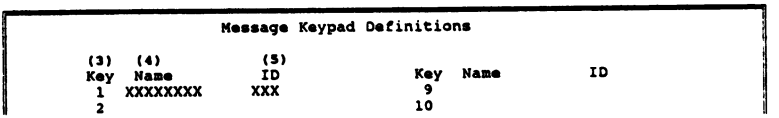


Figure 4-28 - Message Keypad Definitions Window

(1) Function - indicates mobile options function
(2) Window Title - message keypad definition window
(3) Key - positonal key indicator
(4) Name - indicates alphanumeric name
(5) ID - defines message keypad ID number
(6) Prompt Line - current field instruction line

The Message Keypad Definitions Window, shown in Figure 4-28, is accessed by selecting **F8 More** and **F4 MSG** from the Mobile Radio Options Window. This window lets you define the message keypad definitions for mobile units.



Key (3) The **Key** field identifies the numeric keypad key.

This field is for "Display Only" and cannot be accessed.

Name (4) The **Message Name** field indicates an alpha-numeric name that will be displayed whenever an asterisk and the numeric key is pressed.

To define the field, type in the characters desired. You can use up to eight valid characters in any alphanumeric combination. This field is an upper case field and all characters will be converted to upper case even if entered in lower case.

ID (5) The **Message Identification** field indicates the message ID of the numeric keypad key. This number will be transmitted to the trunked system when requested by the site.

Enter a number in the range of 0 - 128 to indicate the desired status ID number.

From the Message Keypad Definitions Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Mobile Radio Options Window.

Defining Sets within the Personality

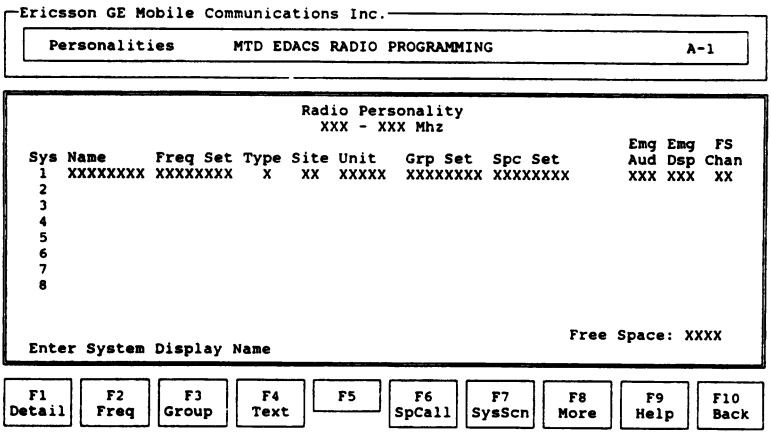


Figure 4-29 - Radio Personality "More" Screen

The Radio Personality "More" Screen, shown in Figure 4-29, is accessed by selecting **F8 More** while in the Radio Personality Screen. As you can see, the fields in this window have not changed, however the function key functions have. You now have access to other windows associated with the radio personality.

From the Radio Personality "More" Screen, function key options are:

F1 - Detail Select this option if you want to:
View or modify frequency set definitions or group set definitions.

F2 - Freq Select this option if you want to:
Create, delete, or modify frequency sets.

F3 - Group Select this option if you want to:
Create, delete, or modify group sets.

F4 - Text Select this option if you want to:
Enter text associated with the personality.

F6 - SpCall Select this option if you want to:
Create, delete, or modify special call sets.

F7 - SysScn Select this option if you want to:
Define the wide area system scan table.

F8 - More Select this option if you want to:
View previous radio personality functions.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

Frequency Sets

Selecting **F2 Freq** while in the Radio Personality "More" Screen will enable you to create, modify, or delete frequency sets existing in the current directory. The data entered in this window will supersede data entered in the setup portion of the program and will be reflected in other existing personalities also. If you wish to only modify an existing frequency set, refer to the Detail portion of this program. For information regarding window structure, refer to the Creating Frequency Sets section in the Setup portion of this manual.

NOTE

New data or modification of existing data in the Currently Defined Frequency Sets Window will also be reflected in other existing personalities.

Group Sets

Selecting **F3 Group** while in the Radio Personality "More" Screen will enable you to create, modify, or delete group sets existing in the current directory. The data entered in this window will supersede data entered in the setup portion of the program and will be reflected in other existing personalities also. If you wish to only modify an existing group set, refer to the Detail portion of this program. For information regarding window structure, refer to the Creating Group Sets section in the Setup portion of this manual.

NOTE

New data or modification of existing data in the Currently Defined Group Sets Window will also be reflected in other existing personalities.

Special Call Sets

Selecting **F6 SpCall** while in the Radio Personality "More" Screen will enable you to create, modify, or delete special call sets existing in the current directory. The data entered in this window will supersede data entered in the setup portion of the program and will be reflected in other existing personalities also. If you wish to only modify an existing special call set, refer to the Detail portion of this program. For information regarding window structure, refer to the Creating Group Sets section in the Setup portion of this manual.

NOTE

New data or modification of existing data in the Currently Defined Special Call Sets Window will also be reflected in other existing personalities.

Personality Text

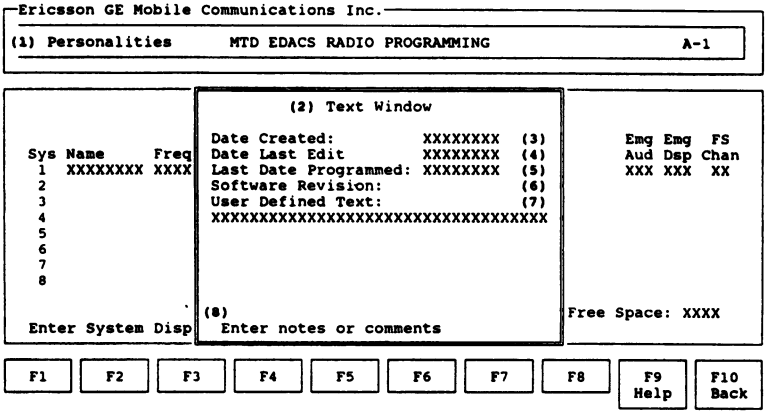


Figure 4-30 - Text Window

(1) Function - indicates personalities function
(2) Window Title - text window
(3) Date Created - date of personality creation
(4) Date Last Edit - date personality last changed
(5) Last Date Programmed - last date of personality write
(6) Software Revision - current radio software version
(7) User Defined Text - area for user notes or comments
(8) Prompt Line - current field instruction line

The Text Window, shown in Figure 4-30, is accessed by selecting **F4 Text** from the Radio Personality "More" Screen. From this window you can view the date created, date of last edit, last date programmed, and the software version of the radio with this personality. There is also space to store a few lines of user text for future reference.

Date Created

(3) The **Date Created** field indicates when this personality was first created.

This is a "Display Only" field and cannot be accessed. It is automatically entered when the personality is created and saved from the Radio Personality Screen.

Date Last Edit (4) The **Date Last Edited** field indicates when this personality was last changed or modified.

This is a "Display Only" field and cannot be accessed. It is automatically updated whenever a change is made to the personality and it is saved from the Radio Personality Screen.

Last Date Programmed (5) The **Last Date Programmed** field is used to indicate the last date when the personality was written to the radio. When the personality is programmed from the Current Personalities Screen, the programmer will capture the system date and store that date in this field.

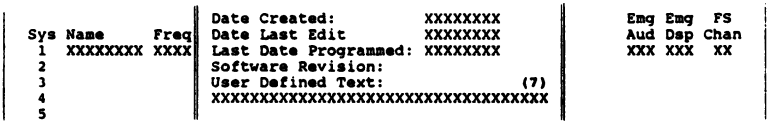
This is a "Display Only" field and cannot be accessed. It is automatically updated when the personality is programmed from the Current Personalities Screen and the write is successful.

NOTE

The last date programmed will only be entered if the operator saves the personality when exiting the Radio Personality Screen.

Software Revision (6) The **Software Revision** field indicates the current radio software version. Like the Programming Date field, this field is only established during the programming process.

This is a "Display Only" field and cannot be accessed. It is automatically updated when the personality is programmed from the Current Personalities Screen and the write is successful.



User Defined Text (7) The **User Defined Text** field is used to enter a few lines of user defined text that will be stored with the personality on disk.

Enter the desired text. You can enter up to six lines of text using any alphanumeric character combination.

From the Text Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Radio Personality "More" Screen.

Wide Area Scan

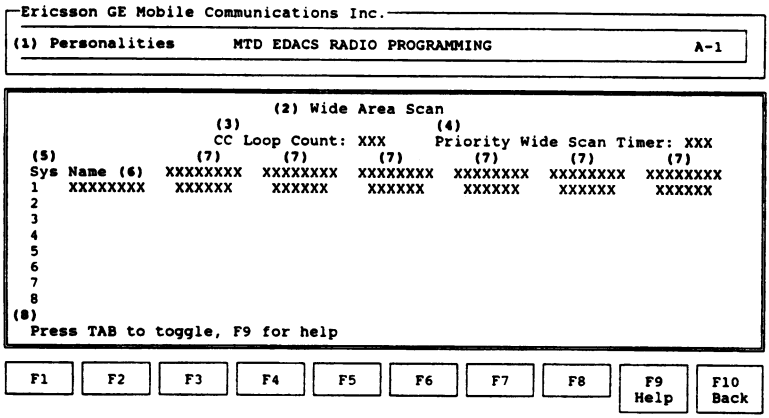


Figure 4-31 - Wide Area Scan Window

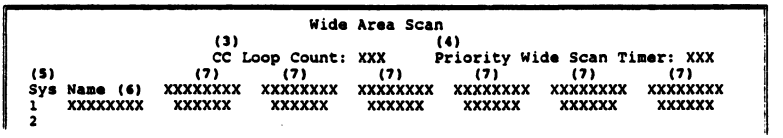
(1) Function - indicates personalities function
(2) Window Title - wide area scan window
(3) CC Loop Count - freq set control channel search time
(4) Priority Wide Scan Timer - sets priority system search time
(5) Sys - positional system indicator
(6) Name - indicates trunked system name
(7) Widearea Scan - sets system's wide area scan
(8) Prompt Line - current field instruction line

The Wide Area Scan Window, shown in Figure 4-31, is accessed by selecting **F7 SysScn** from the Radio Personality "More" Screen. From this window you can define trunked wide area scan systems associated with the personality.

The window displays a table representing a matrix whose rows and columns depict the systems in the personality. The rows and column lengths are both equal to the number of systems. Pressing the up, down, left or right arrows allows you to view an extension of the table. The **Pg Up** and **Pg Dn** keys are also active in this window.

NOTE

A maximum of six systems (including priority system) for any one of the system's scan list are allowed



CC Loop (3) The **CC Loop Count** field allows you to specify how many times the MTD will search the frequency set for a control channel before beginning a check to find a conventional failsoft channel.

Using the **TAB** key as a toggle switch, select "2", "6", "10", or "15". The MTD will check for a conventional failsoft channel after searching its frequency set the indicated number of times.

Priority Wide Scan Timer (4) The **Priority Wide Scan Timer** field determines how often the MTD will check for a priority system.

Using the **TAB** key as a toggle switch, select "1.1", "2.2", "3.3", or "4.3" minutes. The MTD will check for a priority system after the number of minutes indicated.

System (5) The **System** field is used as a positional system indicator.

This field is "Display Only" and is not accessible. There are a total of 48 system indicators.

Name (6) The **Name** fields are displayed in a matrix fashion to indicate currently defined system names.

These fields are "Display Only" and are not accessible in this window. Systems created in the current Radio Personality Screen are displayed in these fields.

Widearea Scan (7) The **Wide Area Scan** fields are used to define the wide area scan settings for the system.

Using the **TAB** key as a toggle switch, select between "- -On- -" , "- -Off- ", and "- -Pri- ". When the field displays "- - - - - -" or "- -N/A-" the **TAB** key will not toggle the field.

- "--On--" shows the system is selected for wide area scan.
- "--Off-" shows the system will be bypassed during wide area scan.
- "-Pri-" shows this system will be selected as the priority system to be scanned.
- "- - - - - -" shows the current system. No entry is allowed in this field because you cannot select the current system for it's own scan list.

"--N/A-" shows a conventional system. No entry is allowed in this field because only trunked systems are allowed in the system's scan list.

From the Wide Area Scan Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Radio Personality Screen.

Programming the Radio within the Change

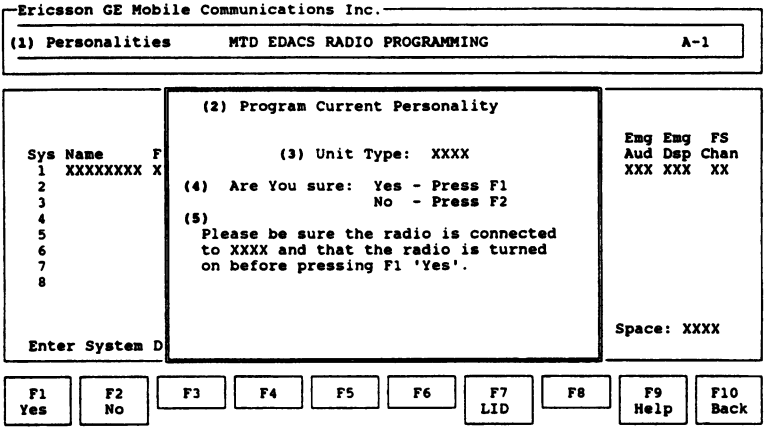


Figure 4-32 - Program Current Personality Window

(1) Function - indicates personalities function
(2) Window Title - program current personality window
(3) Unit Type - target radio for programming option
(4) Continue Prompt - continue or abort option
(5) Note Line - denotes steps necessary to continue

The Program Current Personality Window, shown in Figure 4-32, is accessed by selecting **F5 Progrm** while in the Radio Personality Screen. This window is used to solicit the unit type being programmed.

Unit Type (3) The **Unit Type** field is used to specify the target radio for the programming option.

This is a "Display Only" field indicating the programmer will program the personality to an MTD unit.

From the Program Current Personality Window, function key options are:

F1 - Yes Select this option if you want to:
Program the unit specified.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F7 - LID Select this option if you want to:
Define the logical ID.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Radio Personality Screen.

Defining Program Logical ID

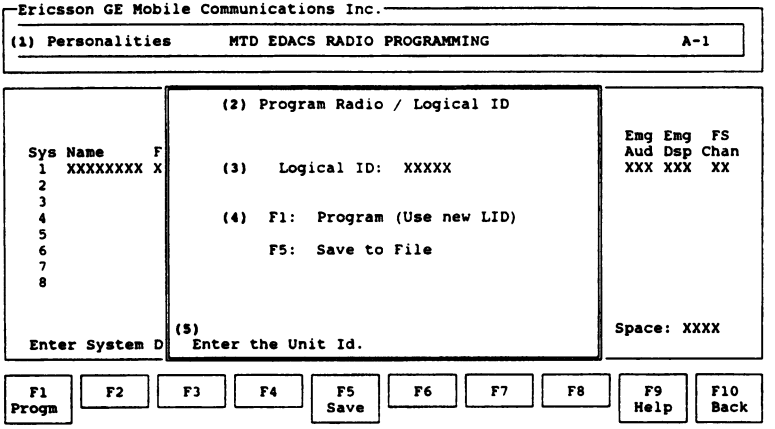


Figure 4-33 - Program Radio/Logical ID Window

(1) Function - indicates personalities function
(2) Window Title - program radio/logical ID window
(3) Logical ID - logical ID number
(4) Continue Prompt - continue or abort option
(5) Prompt Line - current field instruction line

The Program Radio/Logical ID Window, shown in Figure 4-33, is accessed by selecting **F7 LID** while in the Program Current Personality Window from the Current Personalities Screen. This window allows you to identify the Logical ID number to be programmed and/or saved to disk.

Logical ID (3) The **Logical ID** field specifies a new logical unit ID number to use when writing the personality to a radio or another personality.

Enter the logical identification number you want to use for the program operation. To be valid, the ID must be in the range of 1 - 16382.

From the Program Radio/Logical ID Window, function key options are:

F1 - Progrm Select this option if you want to:
Program the personality selected.

F5 - Save Select this option if you want to:
Save the personality selected to disk.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Program Current Personality Window.

SAVING A PERSONALITY

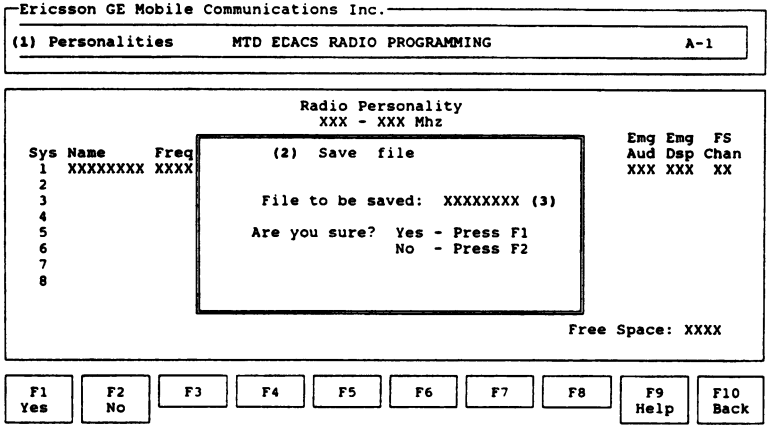
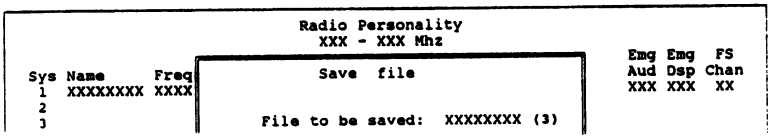


Figure 4-34 - Save File Window

(1) Function - indicates personalities function
(2) Window Title - save file window
(3) File to be saved - current personality name to be saved
(4) Continue Prompt - continue or abort option

The Save File Window, shown in Figure 4-34, is accessed whenever you try to exit the Radio Personality Screen. This window is used to enter data for saving the personality.



File to be saved

(3) The **File to be Saved** field is used to specify the name under which the current personality is to be saved.

Enter the destination file name. This field will accept up to eight characters in any alphanumeric combination. Alphabetic characters will automatically be converted to upper case. This field will not accept file names that are not acceptable to DOS.

From the Save File Window, function key options are:

F1 - Yes Select this option if you want to:
Save the personality selected.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Radio Personality Screen.

MODIFYING A PERSONALITY

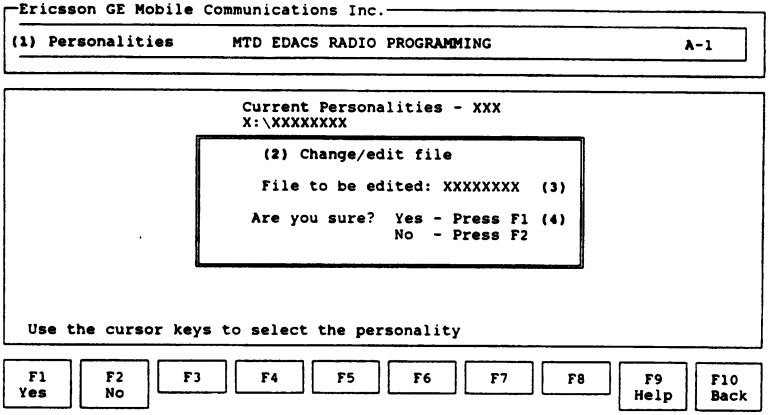


Figure 4-35 - Change/Edit File Window

(1) Function - indicates personalities function
(2) Window Title - change/edit a file window
(3) File to be edited - personality to be edited
(4) Continue Prompt - continue or abort option

The Change/edit File Window, shown in Figure 4-35, is accessed by selecting **F2 Change** while in the Current Personalities Screen. This window is used to gain access to the Radio Personality Screen which allows you to modify existing personalities.

File to be edited (3) The **File to be Edited** field is used to specify the personality selected for change/edit. The file name will default to the last highlighted personality.

Enter the desired file name. To be valid, this field must be a currently defined frequency or group set. This field will accept up to eight characters in any alphanumeric combination. Alphabetic characters will automatically be converted to upper case. This field will not accept file names that are not acceptable to DOS.

From the Change/Edit File Window, function key options are:

F1 - Yes Select this option if you want to:
Change the personality selected.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

PROGRAMMING THE PERSONALITY INTO THE UNIT

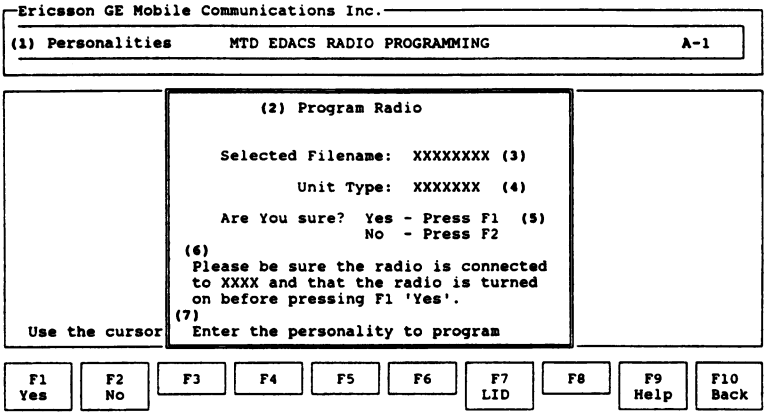


Figure 4-36 - Program Radio Window

(1) Function - indicates personalities function
(2) Window Title - program radio window
(3) Selected Filename - program operation personality name
(4) Unit Type - target radio for programming option
(5) Continue Prompt - continue or abort option
(6) Note Line - denotes steps necessary to continue
(7) Prompt Line - current field instruction line

The Program Radio Window, shown in Figure 4-36, is accessed by selecting **F5 Progrm** while in the Current Personalities Screen. This window is used to solicit the personality name and unit type being programmed.

Selected Filename (3) The **Selected File Name** field specifies the personality name for programming the radio.

Enter the name of the personality you want to use for the program operation. To be valid, the name must correspond to a currently defined personality. This field will accept up to eight characters in any alphanumeric combination. Alphabetic characters will automatically be converted to upper case.

NOTE

After programming the radio, recycle power to reset radio options.

Unit Type (4) The **Unit Type** field is used to specify the target radio for the programming option.

This field is a "Display Only" field and indicates that the programmer will program the personality to an MTD unit.

From the Program Radio Window, function key options are:

F1 - Yes Select this option if you want to:
Program the personality selected.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

Defining Program Logical ID

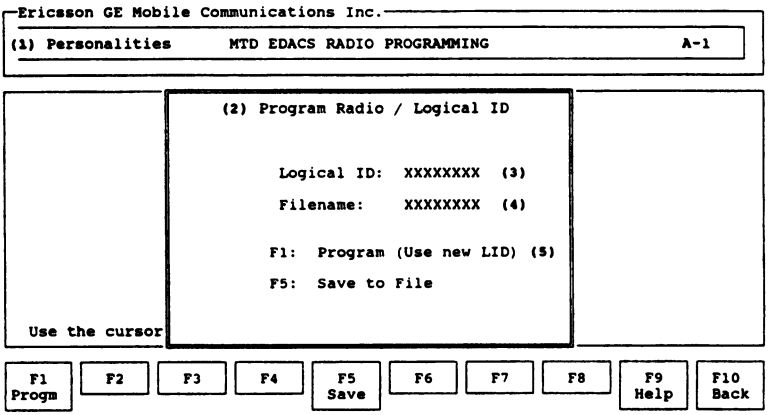


Figure 4-37 - Program Radio/Logical ID Window

(1) Function - indicates personalities function
(2) Window Title - program radio/logical ID window
(3) Logical ID - logical ID number
(4) Filename - program operation personality name
(5) Execution Prompt - execute the window as designated

The Program Radio/Logical ID Window, shown in Figure 4-37, is accessed by selecting **F7 LID** while in the Program Radio Window from the Current Personalities Screen. This window allows you to identify the Logical ID number and personality name to be programmed and/or saved to disk.

Logical ID (3) The **Logical ID** field specifies a new logical unit ID number to use when writing the personality to a radio or another personality.

Enter the logical identification number you want to use for the program operation. To be valid, the ID must be in the range of 1 - 16382.

Filename (4) The **Selected File Name** field is used to specify the name of the personality to use when writing a new logical ID to a radio or another personality.

Enter the name of the personality you want to use for the program operation. To be valid, the name must correspond to a currently defined personality. This field will accept up to eight characters in any alphanumeric combination. Alphabetic characters will automatically be converted to upper case.

From the Program Radio/Logical ID Window, function key options are:

F1 - Progrm Select this option if you want to:
Program the personality selected.

F5 - Save Select this option if you want to:
Save the personality selected to disk.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Program Radio Window.

READING THE PERSONALITY OUT OF THE UNIT

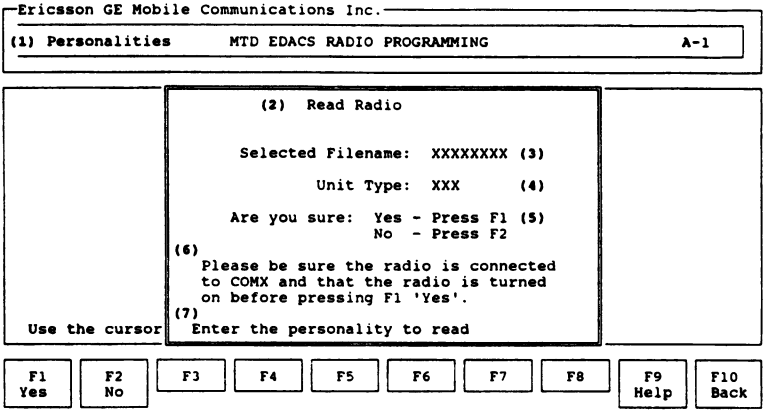


Figure 4-38 - Read Radio Window

(1) Function - indicates personalities function
(2) Window Title - read radio window
(3) Selected Filename - read operation personality name
(4) Unit Type - target radio for programming option
(5) Continue Prompt - continue or abort option
(6) Note Line - denotes steps necessary to continue
(7) Prompt Line - current field instruction line

The Read Radio Window, shown in Figure 4-38, is accessed by selecting **F6 Read** while in the Current Personalities Screen. This window allows you to specify the name in which the personality should be read and the type of radio to be read.

Selected Filename (3) The **Selected File Name** field is used to specify the name of the personality to use for the read operation.

Enter the name of the personality you want to use for the read operation. This field will accept up to eight characters in any alphanumeric combination. Alphabetic characters will automatically be converted to upper case. To be valid, this name must be a valid DOS file name.

Unit Type (4) The **Unit Type** field is used to specify the source radio for the read option.

This field is a "Display Only" field and indicates that the programmer will read the personality from an MTD unit.

From the Read Radio Window, function key options are:

F1 - Yes Select this option if you want to:
Read the personality selected.

F2 - No Select this option if you want to:
Discontinue with this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Current Personalities Screen.

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CHAPTER 5
USING THE UTILITIES

UTILITY WINDOW

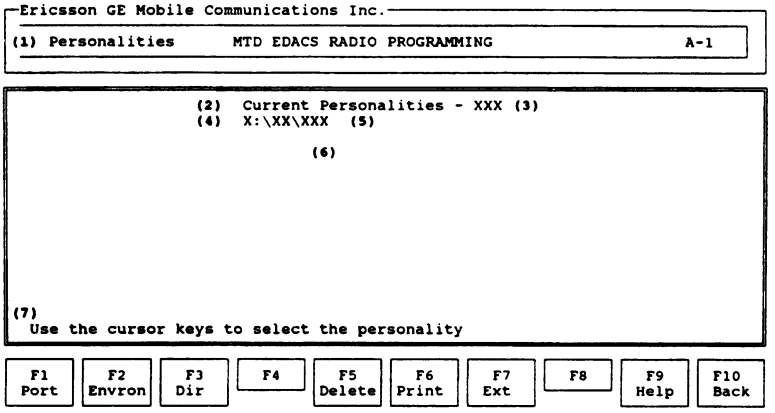


Figure 5-1 - Utilities Window

(1) Function - indicates personalities function
(2) Window Title - current personalities window
(3) Default Extension - designated default extension
(4) Current Drive - designated drive
(5) Current Directory - designated directory name
(6) Personality Area - personalities in current directory
(7) Prompt Line - current field instruction line

The Utility Window, shown in Figure 5-1, is accessed by pressing **F3 Utilty** while in the Current Personalities Screen. This window allows access to infrequently used functions which have little relationship to the actual programming of a radio. This window and its fields are much like the Current Personalities Screen. Note, however, the Function field changes as well as the Function Key options.

From the Utility Window, function key options are:

F1 - Port	Select this option if you want to: Change the port to use for programming radios.
F2 - Envron	Select this option if you want to: Change environment settings.
F3 - Dir	Select this option if you want to: Change your current directory.
F5 - Delete	Select this option if you want to: Delete a personality from the disk.
F6 - Print	Select this option if you want to: Print out the personality to the printer, screen, or file.
F7 - Ext	Select this option if you want to: Change the current extension.
F9 - Help	Select this option if you want to: Receive further information pertaining to a field area.
F10 - Back	Select this option if you want to: Return to the Current Personalities Screen.

CHANGING THE COMMUNICATIONS PORT

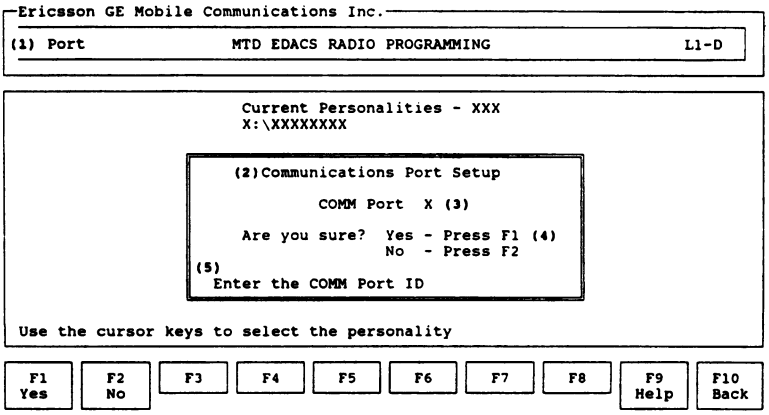


Figure 5-2 - Communications Port Setup Window

(1) Function - indicates port function
(2) Window Title - communications port setup window
(3) COMM Port - communications port indicator
(4) Continue Prompt - continue or abort option
(5) Prompt Line - current field instruction line

The Communications Port Setup Window, shown in Figure 5-2, is accessed by selecting **F1 Port** while in the Utility Window. This window allows you to select the communications port you want to use in programming the radio.

COMM Port(3) The **Communications Port Identification** field is used to identify the communications port to use for programming the unit. There are only two ports available for this purpose: COM1 and COM2.

Enter the desired port by selecting a "1" to indicate COM1 or a "2" to indicate COM2. After selection has been made, press **F1 Yes** to perform the change.

From the Communications Port Setup Window, function key options are:

F1 - Yes Select this option if you want to:
Continue with this change.

F2 - No Select this option if you want to:
Cancel this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Utility Window.

NOTE

Once the **F1 Yes** key is selected, the setup file is updated to reflect the new selection and that selection will become the default until a new selection is made.

CHANGE ENVIRONMENT

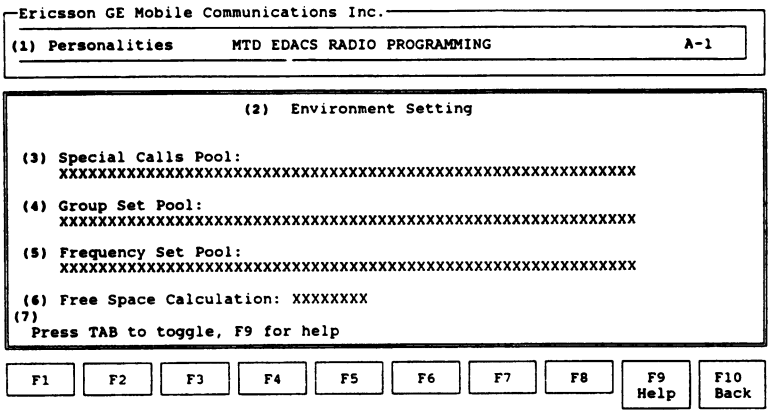


Figure 5-3 - Environment Setting Window

(1) Function - indicates personalities function
(2) Window Title - environment setting window
(3) Special Calls Pool - indicates special calls path
(4) Group Set Pool - indicates group set path
(5) Frequency Set Pool - indicates frequency set path
(6) Free Space Calculation- enables free space field
(7) Prompt Line - Current field instruction line

The Environment Setting Window, shown in Figure 5-3, is accessed by selecting **F2 Envron** while in the Utility Window. This window allows you to select the paths to use during radio programming.

Special Calls Pool (3) The **Special Calls Pool** is used to indicate the drive and directory of special call sets.

To change the special calls path, enter the desired drive letter followed by the desired directory. There is room available for up to alphanumeric 60 characters to designate the special calls path.

```
(4) Group Set Pool:
    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

(5) Frequency Set Pool:
    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

(6) Free Space Calculation: XXXXXXXX
```

Group Set Pool (4) The **Group Set Pool** is used to indicate the drive and directory of group sets.

To change group set the path, enter the desired drive letter followed by the desired directory. There is room available for up to 60 alphanumeric characters to designate the group set path.

Frequency Set Pool (5) The **Frequency Set Pool** is used to indicate the drive and directory of frequency sets.

To change the frequency set path, enter the desired drive letter followed by the desired directory. There is room available for up to 60 alphanumeric characters to designate the frequency set path.

Free Space Calculations (6) The **Free Space Calculations** field allows the appearance of the Free Space field in the Radio Personality Screen.

Using the **TAB** key as a toggle switch, select "Enabled" or "Disabled". Selecting "Enabled" will show how much space remains available in the Radio Personality Screen when creating a personality. "Disabled" prevents the appearance of the Free Space field.

From the Environment Setting Window, function key options are:

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Utility Window.

CHANGE DIRECTORIES

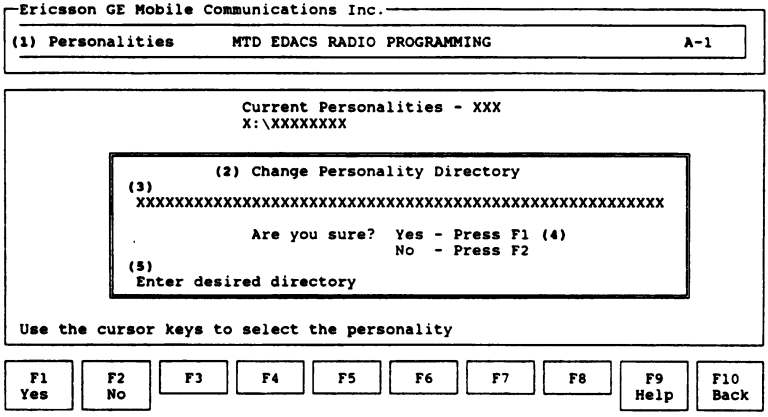


Figure 5-4 - Change Personality Directory Window

(1) Function - indicates personalities function
(2) Window Title - change personality directory window
(3) Directory Field - identify desired directory
(4) Continue Prompt - continue or abort option
(5) Prompt Line - current field instruction line

The Change Personality Directory Window, shown in Figure 5-4, is accessed by selecting **F3 Dir** while in the Utility Window. This window allows you to change directories without leaving the program.

Directory (3) The **Directory** field is used to specify the new directory.

Enter the desired directory. Any valid DOS path identifier with no more than 55 characters will be accepted. To perform the actual change, press **F1 Yes**.

From the Change Personality Directory Window, function key options are:

F1 - Yes Select this option if you want to:
Continue with this change.

F2 - No Select this option if you want to:
Cancel this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Utility Window.

NOTE

Pressing **F1 Yes** will return you to the Utility Window under the specified directory.

DELETE PERSONALITY

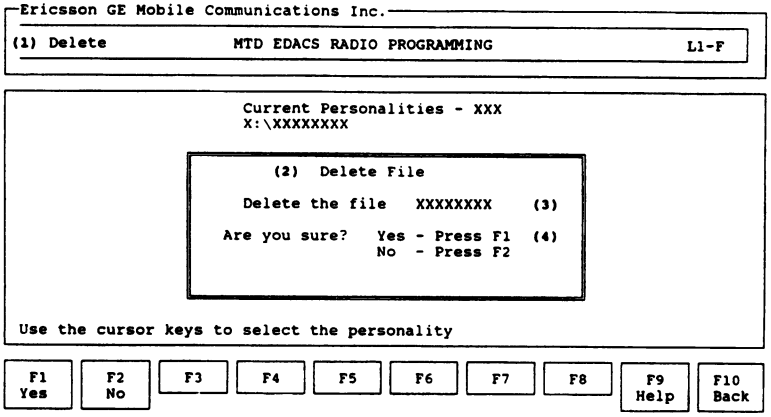


Figure 5-5 - Delete File Window

(1) Function - indicates delete function
(2) Window Title - delete file window
(3) Personality Field - personality to be deleted
(4) Continue Prompt - continue or abort option

The Delete File Window, shown in Figure 5-5, is accessed by selecting **F5 Delete** while in the Utility Window. This window allows you to delete a personality without leaving the program.

Delete the File (3) The **Delete the File** field is used to indicate the name of the personality to be deleted.

Enter the name of the existing personality you want to delete and press **F1 Yes**. The program will display a confirmation prompt before deletion occurs.

NOTE

Deletion of a personality will remove it permanently.

From the Delete File Window, function key options are:

F1 - Yes Select this option if you want to:
Continue with this change.

F2 - No Select this option if you want to:
Cancel this procedure.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Utility Window.

NOTE

If **F1 Yes** is selected the personality named will be PERMANENTLY deleted. If you do not wish to delete the personality, select F2 No.

PRINT PERSONALITY

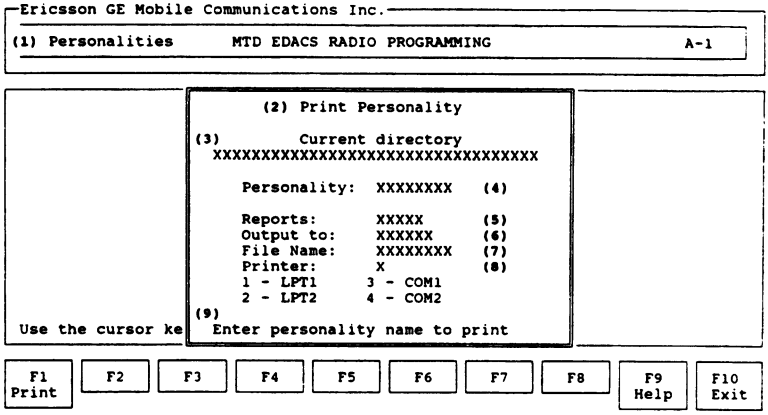
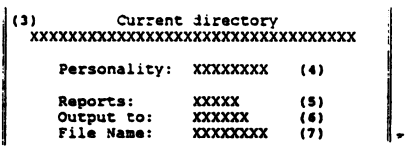


Figure 5-6 - Print Personality Window

(1) Function - indicates personalities function
(2) Window Title - print personality window
(3) Current Directory - identifies directory path
(4) Personality - identifies personality to print
(5) Reports - determines report type
(6) Output To - indicates where to print
(7) File Name - path/file name to print to
(8) Printer - identifies print queue to print to
(9) Prompt Line - current field instruction line

The Print Personality Window, shown in Figure 5-6, is accessed by selecting **F6 Print** while in the Utility Window. This window allows you to generate a printout of the personality selected.



Current Directory (3) The **Current Directory** field is used to specify the path for the personality to be printed.

When entering the Print Personality Window, the cursor appears in the Personality field. To change the the Current Directory field use the up arrow key to cursor into the field. Pressing **Ctrl-Backspace** will clear the field. Enter the desired drive and directory. This field will take up to 34 alphanumeric characters.

Personality (4) The **Personality** field is used to identify the personality to be printed.

This field automatically defaults to the current personality. To change the file name press **Ctrl-Backspace** to clear the field and type in the desired personality. The information entered in this field must be a valid name existing in the designated directory.

Reports (5) The **Reports** field is used to determine the report type you wish to print.

Using the **TAB** key as a toggle switch, select between "Brief" and "Full". Selection of "Brief" will cause a brief print out to appear. Selection of "Full" causes a detailed print out of the personality.

Output To (6) The **Output To** field is used to identify where the personality is to be printed.

Using the **TAB** key as a toggle switch, select between "Printer", "Screen", and "File".

- "Printer" allows you to generate a hard copy printout of the selected personality. Selection of "Printer" also causes the Printer field to appear in the window allowing data entry.
- "Screen" allows you to generate a printout of the personality to the screen. Pressing **F1 Print** will cause the personality data to appear on the screen allowing you to page through it.
- "File" allows you to cause the printout to be generated to the specified file for printout at a later time. Selection of "File" also causes the File Name field to appear in the window allowing data entry.

File Name (7) The **File Name** field is used to enter which path the printed output should go to whenever "File" is the selection made in the Output To field.

Enter a valid path/file name to print to. You can use up to eight characters in this field.

Pressing **F1 Print** will cause the personality data to be generated to the specified file for printout at a later time.

```
Personality:  XXXXXXXX

Reports:      XXXXX
Output to:    XXXXXX
File Name:    XXXXXXXX
Printer:      X          (8)
1 - LPT1      3 - COM1
```

Printer No (8) The **Printer Number** field is used to identify which printer port you will be printing to when "Printer" is selected in the Output to field.

Using the **TAB** key as a toggle switch, select between "1", "2", "3", and "4".

- Selecting "1" designates LPT1 printer port
- Selecting "2" designates LPT2 printer port
- Selecting "3" designates COM1 printer port
- Selecting "4" designates COM2 printer port

After selecting the appropriate printer port, press **F1 Print** to generate a hard copy printout.

From the Print Personality Window, function key options are:

F1 - Print Select this option if you want to:
Print the personality.

F9 - Help Select this option if you want to:
Receive further information pertaining to a field area.

F10 - Back Select this option if you want to:
Return to the Utility Window.

NOTES

If you select "Printer" in the Output to field, and select **F1 Print**, the PC Programming Software will perform a final edit check notifying you if your printer is not on-line. If the printer is on-line the information will then print.

If you select "File" in the Output to field, and select **F1 Print**, the PC Programming Software will perform a final edit check to see that you are not overwriting a file with information already stored on it. If you are, a warning will appear to let you know. If no file is being overwritten, a message will indicate that the printout is being generated and then return you to the Utility Window.

CHANGE EXTENSIONS

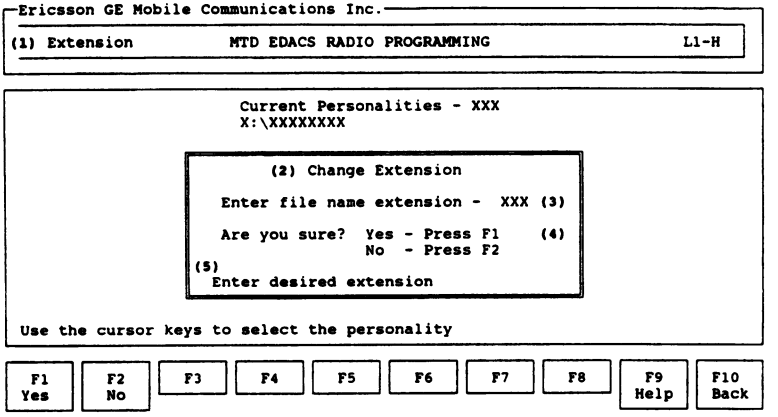


Figure 5-7 - Change Extension Window

(1) Function - indicates extension function
(2) Window Title - change extension window
(3) Enter File Name Ext. - identifies extension
(4) Continue Prompt - continue or abort option
(5) Prompt Line - current field instruction line

The Change Extension Window, shown in Figure 5-7, is accessed by selecting **F7 Ext** while in the Utility Window. This window allows you to select the extension in which personalities are displayed on the screen.

Enter File Name Extension (3) The **Enter File Name Extension** field is used to enter the new file extension to use as the default. This extension will be displayed at the top of the Current Personalities Screen.

Enter three alphanumeric characters as valid file extensions. After specifying the extension, press **F1 Yes** to perform the change.

From the Change Extension Window, function key options are:

F1 - Yes	Select this option if you want to: Continue with this change.
F2 - No	Select this option if you want to: Cancel this procedure.
F9 - Help	Select this option if you want to: Receive further information pertaining to a field area.
F10 - Back	Select this option if you want to: Return to the Utility Window.

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CHAPTER 6
WHEN PROBLEMS ARISE

This chapter is devoted exclusively to explaining the error messages you might encounter and how to rectify the situation while programming the unit. However, should your program lock up and no error message appear, it is best to reboot the system by pressing **Ctrl-Alt-Del** simultaneously. What you have previously programmed will probably be lost so don't do this unless the keyboard keys no longer function.

NOTICE TO USERS

Some TSR's (Terminate and Stay Resident Programs) cause an undesired interaction with the PC programmer causing it to act strangely or lock the machine up. If you experience strange behavior with the PC programmer, please remove all memory resident programs and TSR's.

C

Problem: "Cannot access personality directory."

Appears whenever an invalid directory path is entered in the Current Directory field.

Solution: You will need to clear the field and enter a valid path.

Problem: "Cannot execute write - disk full."

An attempt was made to program the radio from within the Radio Personality Screen. During the write operation, the PC programmer requires the creation of a temporary file. This error message indicates that the disk is full and the programmer could not create the temporary file it needed.

Solution: You will need to create disk space on your disk or get a new data disk before attempting the write operation from within the Radio Personality Screen. Refer to your DOS User's Guide for help in deleting files.

Problem: "Cannot page down."

This is an indication that you can no longer page down through your display data on the window either because you have reached the physical end of your data or the window is not complete.

Solution: If you are at the end of your data, you can do nothing more than page up. Otherwise check to ensure that your current window is completely filled in.

Problem: "Cannot page up."

This is an indication that you are at the very beginning of a data display window.

Solution: Discontinue paging up.

Problem: "Cannot save file - disk full."

This message is an indication that your disk is running out of storage space. You will not be able to save the personality unless you have enough disk space in which to store a personality.

Solution: You will need to create disk space on your disk or get a new data disk. Refer to your DOS User's Guide for help in deleting files.

Problem: "CCT must be in increments of 10."

An attempt was made to enter a carrier control timer value that was not divisible by 10.

Solution: Enter a carrier control timer value that is divisible by 10.

Problem: "CCT range is 0 - 250."

An attempt was made to enter a carrier control timer value that is outside of the acceptable range of values.

Solution: Enter a valid carrier control timer value.

Problem: "Channel __ is not a valid channel in the Frequency Set."

An attempt was made to specify a channel as a home channel that is not currently defined in the frequency set.

Solution: Specify a channel that is currently defined in the frequency set.

Problem: "Channel __ must have an RX & TX frequency."

An attempt was made to define a channel with only a transmit frequency defined. This is a condition not allowed by the programmer.

Solution: Return to the channel in question and enter a receive frequency.

Problem: "Channel __ must have an RX frequency."

An attempt was made to define a channel with only a transmit frequency defined. This is a condition not allowed by the programmer.

Solution: Return to the channel in question and enter a receive frequency.

Problem: "Could not delete file."

An attempt was made to delete either a personality or a frequency set that could not be deleted because the file doesn't exist, the drive is write protected, or there is a problem with the diskette.

Solution: Ensure that the personality or frequency set you are trying to delete actually exists. Next check to ensure that the diskette is not write protected.

Problem: "Could not display file."

This message is an indication that the program could not read one of the temporary files it created.

Solution: Please contact Ericsson GE Mobile Communications if you receive this message.

Problem: "Could not open file."

This message is an indication that the program could not read one of the temporary files it created.

Solution: Please contact Ericsson GE Mobile Communications if you receive this message.

Problem: "Could not open port."

An attempt was made to print a personality to a communications port that was not installed or was non-functional.

Solution: Ensure that the port specified is correctly installed in your machine and is operational. Refer to your Technical Reference Manual for more information on communications ports.

Problem: "Could not open temporary file."

At various times, the PC Programmer creates temporary files for storage. This message is an indication that the program could not read one of the temporary files it created.

Solution: Please contact Ericsson GE Mobile Communications if you receive this message.

D

Problem: "Device not present."

An attempt was made to print the personality to a printer that was either not installed or was non-functional.

Solution: Ensure that the printer specified is correctly installed and operational before attempting further prints. Most printers are installed on LPT1.

Problem: "Directory does not exist."

This is an indication that the directory you tried to change to does not exist. The programmer will ask if it should create the directory.

Solution: Only specify a valid path/directory when attempting to change directories, or specify that the programmer should create it.

E

Problem: "Error reading mobile radio options."

This is an indication that the personality you are attempting to access was not entirely saved to disk because the disk was full when the save operation took place.

Solution: Because there was not enough disk space when saving this personality, the file will be removed and you must redefine the personality. Be sure the diskette has enough disk space.

Problem: "Error writing mobile radio options."

This is an indication that the personality you are attempting to save to disk cannot be saved to disk because the disk is full.

Solution: Do not press any keyboard keys before changing diskettes so that there will be enough space to save the file. Pressing any keys before changing diskettes will cause the file to be deleted.

Problem: "Error, Valid range for CCT is 0 to 250."

An attempt was made to enter a CCT value that was not in the acceptable range of 0 to 250.

Solution: Enter a CCT value in the 0 to 250 range.

F

Problem: "File does not exist."

An attempt was made to change/delete or print a personality or frequency set that does not exist.

Solution: Correct the file name entry before further attempts are made.

Problem: "File exists. Press 'Y' to overwrite, 'N' to quit."

An attempt was made to read or store a personality, frequency set, group set, or special call set to disk while a file with the same exists.

Solution: Select 'Y' to overwrite the existing file or select 'N' in order to rename the file.

Problem: "File is not correct type."

An attempt was made to change either a personality or frequency set and the file selected was not of the correct type.

Solution: Remove or do not use the questionable file.

Problem: "File name may not contain an extension."

An attempt was made to specify a file extension from the change/edit or delete window.

Solution: These windows do not require the addition of a file extension when the file name is specified. Remove the file extension before further attempts are made.

Problem: "File not found."

An attempt was made to change/delete or print a personality or frequency set that does not exist.

Solution: Correct the file name entry before further attempts are made.

Problem: "Frequency out of range."

An attempt was made to enter a frequency that does not fall within the band split selected.

Solution: Ensure that the frequency specified falls within the band split indicated at the top of the window.

Problem: "Frequency set invalid - split is ___ - ___."

An attempt was made to enter a frequency set in the radio personality that does not belong to the band split.

Solution: Enter a frequency set that falls within the designated split.

Problem: "Frequency sets must have at least one channel."

An attempt was made to leave the detail Frequency Set Window or save a frequency set definition without any channels defined.

Solution: The program will not allow you to continue without adding a channel. Ensure that at least one valid channel definition is in the frequency set before continuing.

G

Problem: "Group __ must have a valid ID."

An attempt was made to leave the Group Set without entering a group ID.

Solution: Enter a group ID before leaving the Group Set. Group IDs should be in the range of 0 - 2048.

Problem: "Group numbers must be in ascending order."

An attempt was made to enter a group number that was not in ascending order.

Solution: Enter a group number that is in ascending order.

Problem: "Group sets must contain at least one group."

An attempt was made to save a group set to disk without a group defined. This is a condition not allowed by the programmer.

Solution: Define a group before attempt to save.

I

Problem: "Incorrect file size/type."

An attempt was made to change either a personality or frequency set and the file selected was not of the correct type.

Solution: Remove or do not use the questionable file.

Problem: "Insufficient Space on Specified Drive."

An attempt was made to save a personality to disk when the disk was full.

Solution: Change the path specified to redirect the personality to another drive. After saving the personality, exit the programmer and remove old/unused files. Refer to your DOS User's Guide for more information on deleting files.

Problem: "Invalid Channel Guard entered."

An attempt was made to enter an invalid Digital Channel Guard or a tone Channel Guard that is outside of the acceptable range.

Solution: Enter a tone Channel Guard within the range of 67.0 to 210.7 or refer to Appendix D for a valid Digital Channel Guard.

Problem: "Invalid channel spacing."

An attempt was made to enter a frequency that has an incorrect channel spacing for this particular split.

Solution: Enter a frequency that is evenly divisible by .0125.

Problem: "Invalid conventional frequency test set."

An attempt was made to specify a conventional frequency test set that does not exist in the Pool directory.

Solution: Ensure that the conventional frequency test set specified actually exists in the Currently Defined Frequency sets window by pressing **F2 Freq**.

Problem: "Invalid Conventional system."

An attempt was made to save the personality to disk with an invalid conventional system specified.

Solution: To be valid, a conventional system must have a valid frequency set.

Problem: "Invalid Device Number."

An attempt was made to print the personality to a device that is not supported.

Solution: Enter a valid device. Valid devices are 1-LPT1, 2-LPT2, 3-COM1, and 4-COM2.

Problem: "Invalid Drive Specification."

An attempt was made to save the personality to a drive that does not exist.

Solution: Enter only a valid drive specification.

Problem: "Invalid extension specified."

An attempt was made to specify an extension (from the Change Extension Window) that does not meet the conditions for a valid extension.

Solution: Ensure that the extension specified consists of only alphanumeric characters.

Problem: "Invalid file name."

An attempt was made to enter a file name that is not acceptable to DOS or the programmer.

Solution: Correct the file name entry before further attempts are made. Refer to your DOS User's Guide for more information on file naming convention.

Problem: "Invalid FS number."

An attempt was made to specify a failsoft number that does not exist in the trunked frequency set.

Solution: Specify one of the channels defined in the set.

Problem: "Invalid home channel in frequency set."

An attempt was made to specify a home channel that does not have a transmit frequency specified or does not exist in the set. All home channels must have a transmit frequency.

Solution: Enter a channel that has both a Tx and Rx frequency specified.

Problem: "Invalid Home Group, name not in group set."

An attempt was made to specify a home group that does not exist in the group set.

Solution: Enter the name of a group that exists in the personality.

Problem: "Invalid - must enter number."

An attempt was made to leave a field blank or to enter a non-numeric character in a field that requires numeric input.

Solution: Enter a number in the field.

Problem: "Invalid Name."

This message indicates that some of the characters entered are not valid for the radio display.

Solution: Refer to the Acceptable Values Appendix (Appendix C) in the back of this manual for valid characters for radio display. Re-enter the name using valid displayable characters.

Problem: "Invalid number of agencies."

An attempt was made to enter an invalid number of agencies.

Solution: Enter a valid agency number. The possible number of agencies are 2, 4, 8, 16, and 32. You cannot specify intermediary numbers.

Problem: "Invalid number of fleets."

An attempt was made to enter a number of fleets per agency that do not exist.

Solution: Enter a number between 1 - 256 and a power of two depending on the number of agencies specified. When the number of agencies are 2, the maximum fleets are 256. When the number of agencies are 4, the maximum fleets are 128. When the number of agencies are 8, the maximum fleets are 64. When the number of agencies are 16, the maximum fleets are 32. When the number of agencies are 32, the maximum fleets are 16.

Problem: "Invalid Number, must be 0 - 9."

An attempt was made to specify a number out of the acceptable range of values.

Solution: Enter a number between 0 and 9.

Problem: "Invalid phone number."

An attempt was made to enter a number containing characters not acceptable to the PC programmer.

Solution: Enter only the digits 0-9 when defining a phone number.

Problem: "Invalid port entered."

An attempt was made to specify a communications port other than COM1 or COM2. The PC Programmer Software only supports COM1 or COM2.

Solution: Use either COM1 or COM2 for programming.

Problem: "Invalid Prestored Interconnect number. Must enter numeric data only."

An attempt was made to enter a number containing alpha or display characters in a field that specifies only numeric characters as valid.

Solution: Clear the field and enter only numeric characters.

Problem: "Invalid remote group."

An attempt was made to save the personality with an invalid remote group specified under the Desktop Options Window.

Solution: From the Radio Personality Screen, press **F7 Mobile**, **F6 Desk**, and ensure that all remote groups are valid.

Problem: "Invalid remote system."

An attempt was made to save the personality with an invalid remote system specified under the Desktop Options Window.

Solution: From the Radio Personality Screen, press **F7 Mobile**, **F6 Desk**, and ensure that all remote systems are valid.

Problem: "Invalid Site ID, 1 - 31."

An attempt was made to specify a site ID that falls outside of the acceptable range of values.

Solution: Enter an ID that falls within the range of 1 - 31.

Problem: "Invalid Trunked system."

An attempt was made to save the personality to disk with an incomplete trunked system definition.

Solution: A valid trunked system must have a frequency set, site ID, unit ID, and group set. Ensure that the system in question meets the conditions above.

Problem: "Invalid Unit ID, 0 - 16382."

An attempt was made to specify a unit ID that falls outside of the acceptable range of values.

Solution: Enter an ID that falls within the range of 0 - 16382.

M

Problem: "Maximum eight Conv sets allowed - cannot add this set."

An attempt was made to include a conventional set that would cause the personality to exceed the channel capacity.

Solution: If it is necessary to add another set, either change an existing set or delete a previously created set.

Problem: "Minimum volume range is 0 to 15."

An attempt was made to specify a volume range that falls outside of the acceptable range of values.

Solution: Enter a valid minimum volume in the range of 0 - 15.

Problem: "Must be a valid channel in the Trunk Set. There are only _ channel(s) in the Trunk Set.

An attempt was made to enter a channel number that does not exist in the trunked set selected.

Solution: Enter a channel number corresponding to a valid channel in the trunked set specified.

Problem: "Must be in increments of 5."

An attempt was made to enter a value that is not divisible by 5.

Solution: Enter a value that is divisible by 5.

Problem: "Must be in increments of .5."

An attempt was made to enter a value that is not divisible by .5.

Solution: Enter a value that is divisible by .5.

Problem: "Must be on Frequency Set, Group Set, or Special Call Set field."

The **F1 Detail** key was pressed while the cursor was on a field other than the frequency set, group set, or special call set field. The detail key will only work when the cursor is on the frequency, group, or special call set you wish to detail.

Solution: Move the cursor to the frequency set, group set, or special call set field before attempting to perform the detail operation.

Problem: "Must have valid remote systems."

An attempt was made to define a remote system that is invalid to the programmer. Valid remote systems must be within the first 16 system numbers of the personality.

Solution: Ensure that the system in question is one of the first 16 defined.

Problem: "Must remove empty special calls."

An attempt was made to leave a gap in the special call list.

Solution: Remove the gap by cursoring into the line in question and press **F3 Remove**.

Problem: "Must specify file name."

An attempt was made to change/edit a personality, frequency set, or group set without specifying a file name.

Solution: Enter a valid file name.

N

Problem: "Name not added - no room."

This message occurs when the personality grows so large that there is no further room to add display names.

Solution: Do not use unique names for channels and/or groups. Similar names may be reused.

Problem: "No Agency Data."

An attempt was made to create a personality without having the agency partition data defined. This condition is not acceptable to the PC programmer.

Solution: From the Current Personalities Screen, press **F1 Setup** and define the agency partition data.

Problem: "Not enough room - maximum of 48 channels allowed."

An attempt was made to enter more channels than allowed.

Solution: If another channel is necessary you must first either delete an existing channel or edit an already existing channel.

Problem: "Not enough room for this group set."

An attempt was made to add a group set when the maximum number of groups had already been exceeded.

Solution: To add another group set, you must first either delete an existing group set or edit an already existing set.

Problem: "Not enough room to add this set."

An attempt was made to add a set when the maximum number of sets had already been exceeded.

Solution: To add another set, you must first either delete an existing set or edit an already existing set.

O

Problem: "Only 48 conventional channels allowed."

An attempt was made to create a conventional channel that would cause the personality to exceed the channel capacity.

Solution: If another channel is necessary, you must first remove an existing channel to make room to add this channel.

Problem: "Only 8 conventional sets allowed."

An attempt was made to include a conventional set that would cause the personality to exceed the allowable capacity.

Solution: To add another set, either change an existing set or delete a previously created set.

Problem: "Out of paper."

An attempt was made to print to a printer where there was not paper.

Solution: Insert paper in the printer and re-initiate the print function.

P

Problem: "Personalities must have at least 1 system."

An attempt was made to save the personality to disk without a system defined. This condition is not acceptable to the PC programmer.

Solution: Either do not attempt to save the personality or ensure that the personality has at least one system defined.

Problem: "Printer busy."

An attempt was made to print to a printer where other information was already being printed.

Solution: Either designate another printer to print to or wait until the present printer is no longer busy.

Problem: "Printer error - printer not on line."
"Printer not on line."
"Printer off line."

An attempt was made to print to a printer that is either not powered up or is off line.

Solution: Ensure that power is applied to the printer in that the on line indicator is illuminated.

Problem: "Problem with Print."

An attempt was made to print a personality and the main program could not initiate the print task. There are three common reasons for the print initiate to fail. There is not enough memory available, the print executable is not in the right directory for the initiate, or you are using a version of DOS earlier than version 3.0 or higher.

Solution: First, check to ensure that you are running the right version of DOS. Exit the program and at the DOS prompt, type **VER <enter>**. Typing this command will cause the DOS version to appear on the window. If this number is 1.XX or 2.XX you will need to upgrade to DOS 3.0 or higher. Next, check to ensure that MTDPRINT.EXE file resides in the same directory as the MTD.EXE file. If the MTDPRINT.EXE file is not there, copy it from the distribution diskettes. However, if the print is there then you must be running out of memory. If you have any memory resident programs installed then remove them before continuing.

Problem: "Problem with Read."

An attempt was made to read the unit and the main program could not initiate the read task. There are three common reasons for the read initiate to fail. There is not enough memory available, the read executable is not in the right directory for the initiate, or you are using a version of DOS earlier than version 3.0 or higher.

Solution: First, check to ensure that you are running the right version of DOS. Exit the program and at the DOS prompt, type **VER <enter>**. Typing this command will cause the DOS version to appear on the window. If this number is 1.XX or 2.XX you will need to upgrade to DOS 3.0 or higher. Next, check to ensure that the correct read file resides in the same directory as the MTD.EXE file. If the read file is not there, copy it from the distribution diskettes. However, if the read is there then you must be running out of memory. If you have any memory resident programs installed then remove them before continuing.

Problem: "Problem with Write"

An attempt was made to write a personality and the main program could not initiate the write task. There are three common reasons for the write initiate to fail. First, there is not enough memory available, the write executable is not in the right directory for the initiate or you are using a version of DOS earlier than version 3.0 or higher.

Solution: First, check to ensure that you're running the right version of DOS. Exit the program and at the DOS prompt, type **VER <enter>**. Typing this command will cause the DOS version to appear on the window. If this number is 1.XX or 2.XX you will need to upgrade to DOS 3.0 or higher. Next, check to ensure that correct write file resides in the same directory as the MTD.EXE file. If the write file is not there, copy it from the distribution diskettes. However, if the write is there then you must be running out of memory. If you have any memory resident programs installed then remove them before continuing.

Problem: "Read failed. Check connection."

This message will appear whenever handshaking with the unit fails. There are several reasons for the program being unable to handshake with the unit: power is not applied to the unit, cabling is not properly seated or connected, incorrect communications port has been specified, or the unit is turned off or malfunctioning.

Solution: The first step is to try and isolate the cause of the problem. Is the unit malfunctioning? Replace the unit with a known good unit and attempt a read. If the message reappears, then the problem is not with the unit. Is your cabling connected and seated correctly? Is your power supply for the TQ-3310 PC interface box properly installed? Refer to the hardware configuration in Chapter 2 for help in making this determination. Lastly, do you have the right port specified? Go into the Utility Window and change the port setup. If the problem still appears you should check your asynchronous card for functionality.

Problem: "Remote channels must be one of the first 16 channels."

An attempt was made to designate a remote channel as a channel other than one of the first 16 channels.

Solution: Redesignate the remote channel as one of the first 16 channels.

Problem: "Remote channels must have valid remote systems."

An attempt was made to leave the Desktop Options Window without a valid remote system specified. All remote channels must have remote systems.

Solution: Ensure all remote channels have a remote system specified.

Problem: "Remote groups must be one of the first 16 groups."

An attempt was made to designate a remote group as a group other than one of the first 16 groups.

Solution: Redesignate the remote group as one of the first 16 groups.

Problem: "Remote system invalid."

An attempt was made to define a remote system that is invalid to the programmer. Valid remote systems must be within the first 16 system numbers of the personality.

Solution: Ensure that the system in question is one of the first 16 defined.

Problem: "Remote systems must be one of the first 16 systems."

An attempt was made to designate a remote system as a system other than one of the first 16 systems.

Solution: Redesignate the remote system as one of the first 16 systems.

Problem: "Removing file."

An attempt was made enter or save a personality when there was not enough room on the disk to store the entire personality. Once a keyboard key is pressed after a warning indicating this problem, the file will be removed.

Solution: Either insert a new diskette or delete files to create enough space for the personality desired and redefine and save the personality.

S

Problem: "Site test unit must be a valid system."

An attempt was made to save the personality with an invalid site test unit specified.

Solution: From the Radio Personality Screen, press **F7 Mobile, F3 Param** and ensure that the site test unit is valid.

Problem: "Specify a frequency set name."

No frequency set name was given.

Solution: Enter a frequency set name.

Problem: "Specify a group set name."

No group set name was given.

Solution: Enter a group set name.

T

Problem: "The file already exists!...Overwrite?! (Y/N)."

An attempt was made to save a personality, frequency set, or group set to disk while a file with the same name exists.

Solution: Select 'Y' to overwrite the existing file, or select 'N' in order to rename the file.

Problem: "Timeout must be in intervals of 5."

An attempt was made to enter a time out value that was not divisible by 5.

Solution: Enter a time out value that is divisible by 5.

Problem: "Trunked system # _ must contain a valid group set."

An attempt was made to enter a personality that does not have a group set entered in the trunked system definition.

Solution: Enter a valid group set in the trunked system definition before saving the personality.

U

Problem: "Unable to create directory."

An attempt was made to enter too many subdirectories at one time.

Solution: Enter only one subdirectory at a time. You can only create one subdirectory at a time.

V

Problem: "Valid range for group ID is 1 to 2047."

An attempt was made to enter a group ID that falls outside the range of acceptable values.

Solution: Enter a valid group ID in the range of 1 - 2047.

Problem: "Valid range is 0 to 31."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 31.

Problem: "Valid range is 0 to 128."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 128.

Problem: "Valid range is 0 to 250."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 250.

Problem: "Valid range is 0 to 510 msecs."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 510.

Problem: "Valid range is 0 to 16382."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 16382.

Problem: "Valid ranges are 0 to 15."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 15.

Problem: "Valid ranges are 0 to 31."

An attempt was made to enter a value that falls outside the range of acceptable values.

Solution: Enter a valid value in the range of 0 - 31.

Problem: "Volume range is 0 - 15."

An attempt was made to enter a volume value that falls outside the range of acceptable values.

Solution: Enter a valid volume value in the range of 0 - 15.

W

Problem: "WARNING: Desktop range is 0 to 15."

This message is displayed when an initial volume setting greater than 15 is entered. This message is just to inform you that this volume setting is illegal should the personality be programmed into a Desktop unit.

Solution: If the personality being edited is to be programmed into a Desktop unit, please ensure that the volume range is between 0 and 15.

APPENDIX A
TERMS

Cursor Keys - The keys on the right hand side of the keyboard marked with arrows (Up Arrow, Right Arrow, Down Arrow and Left Arrow keys). They are used to control the direction of the cursor.

Default Value - The MTD EDACS radio software provides predetermined (default) values in a majority of the data entry fields within the program. Exceptions to this rule are fields requiring variable names, dates, and serial numbers. The default values assume that the radio will be used without optional features. Before changing these default values, we recommend that you be familiar with the operational implications of adding a particular feature or option to the radio being programmed.

Detail - Allows you to make changes in the frequency set or group set windows from the radio personality screen. These changes will only apply to the particular radio personality currently being edited. Detail does not affect any information stored in the Pool directory.

Error Messages - Each time data is entered in the program a validity check is made to ensure that reasonable values were entered. In the event that the data does not fall within the acceptable range of values, an error message will be displayed in the center of the screen indicating non acceptance.

Failsoft - Refers to the mode of operation of the trunked system when the site controller is not operational.

Field - Refers to the area of the screen/window which allows data entry. This area is readily identifiable by a reverse video bar when moving the cursor across the screen.

Frequency Set - Refers to a collection of channel definitions that can be stored to disk for later recall. These channels must fall within a particular band split.

Function Keys - Function keys are the keys, often found on the left-hand portion of your PC's keyboard, which begin with the prefix F. The function keys are used in the PC Programmer Software to execute a particular command.

GID - Refers to group identification which is used to determine which group calls the unit should unmute for.

Group Set - Refers to a collection of individual groups (agencies, fleets, subfleets). There can be up to fifty groups within a group set with one group identified as the home group which is the group setting that the radio will go to should the emergency key be depressed.

Help - Throughout the MTD EDACS radio software, Help denotes or refers to on-line assistance. This can be accessed by pressing the **F9 Help** key from any field.

PC Programmer Software - This term is used to identify the programming software for the MTD EDACS radio.

Personality - Used generically to refer to information that is stored in the radio that makes one radio perform differently from all other radios. That information can be created, deleted or modified and stored on a disk for later reference.

Pool - Refers to a directory in the data base where frequency sets, group sets, and special call sets are stored.

Prompt Line - Assistance text located on the last line of the window. This line provides directions for entering data and changes when moving from field to field.

Ramp - Refers to rapid channel or volume advancement while depressing key and holding.

Screen - Refers to a major or parent data entry process and is used to show position within the program. Each screen is divided into three distinct areas: (1) screen title, (2) screen windows, and (3) active function keys. The title tells you where you are in the program hierarchy. The screen windows are provided for input of data to the screen. The active function keys provide access to the commands (or actions) available within that screen. The function key commands are labeled along the bottom of the screen. Only

the function keys with labels are enabled in a given screen or window.

Spurs - Refers to the harmonics induced into the audio by the IF oscillator on a limited number of channels.

Squelch Tail Elimination - Refers to inverting the phase of the Channel Guard tone in order to mute the audio of the receiving radio while the carrier is diminishing after transmit ends.

System - Defines a mode of operation in MTD EDACS radios. There are two types of systems available for the radio: trunked and conventional. A conventional system consists of a display name/ number and a set of conventional frequencies in which the unit operates. A trunked system consists of a display name/number, a set of trunked channels in which the unit operates, or site ID, unit ID, and conversation group set.

Window - A window is a section of a screen that displays previously stored information, enables programming alternatives, or accepts data currently being entered. There may be more than one window within a particular screen. Each window is outlined within the screen presentation.

There are two types of windows: active and passive. The active window is available for data entry or revision and can be identified by its highlighted borders. The passive window is displayed but is unavailable for program execution. In the case that windows have overlapping borders, the active window is presented in the foreground.

Like the screen, windows are divided into three distinct sections. They are: (1) window title, (2) work area, and (3) prompt line. The window title describes the function currently being performed. The work area is the space provided for your input to the window. The prompt line is printed information in the lower portion of the window defining in further detail the action to be taken in the work area.

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APPENDIX B
FUNCTION KEYS

F1

F1 Agency - From the Mobile Radio Options Window, this key allows you to access and modify agency partition data for the current personality.

F1 Detail - From the Radio Personality Screen, this key provides access to view or modify frequency set definitions, group set definitions, or special call set definitions.

F1 Menu - From the Mobile Radio Options Window, this key allows you to select menu options associated with the mobile radio.

F1 Port - From the Utility Window, the Communications Port Setup key allows you to select a port on your personal computer to be used for communicating with the radio.

F1 Print - From the Print Personality Window, the Print key allows you to print the designated personality to the designated source.

F1 Setup - From the Current Personalities Screen, this key allows you to select personality defaults by defining agency data.

F1 Switch - From the Agency Partition Data Window, this key allows you access to the Frequency Ranges Window. From the Frequency Ranges Window, this key allows access to the Agency Partition Data Window.

F1 Yes - From various process windows, the selected operation will be executed. At numerous times during the programming of the radio, the program may ask you if you want to complete an operation. Pressing this key completes the selected operation.

F2

F2 Change - From the Current Personality Screen this function key allows you to change or edit an existing personality. This key, along with the **F4 New** key, provides access to the Radio Personality Screen. From the Currently Defined Frequency Sets Screen this key allows you to change or edit an existing frequency set. From the Currently Defined Group Sets Screen this key allows you to change or edit an existing group set. And, from the Currently Defined Special Call Sets Screen this key allows you to change or edit an existing special call set.

F2 Envron - From the Utility Window, this key allows you to change existing environment settings.

F2 Freq - From the Currently Defined Frequency Sets Window, this function key allows you to change existing frequency sets. From the Radio Personality Screen, this key allows you to enter the Currently Defined Frequency Sets Window.

F2 Inital - From the Mobile Radio Options Window, the Initial Function Key allows you to set the initial radio state. These options only apply to the initial state of the radio after programming which may or may not be the power up state of the radio.

F2 Insert - Used to insert a new line for a channel definition, a group set definition, a conventional set definition, or special call set definition.

F2 No - From various process windows, the selected operation will be canceled. At numerous times during programming of the radio, the program will ask if you wish to complete an operation. When you press this key the selected operation will <u>not</u> be executed.

F3

F3 Dir - The Change Directory Function Key command is enabled within the Utility Window and allows you to change directories without having to exit the program.

F3 Group - Used to create, delete, or modify pooled group sets from the Setup portion of the program or the Radio Personality Screen.

F3 NewTrk - From the Currently Defined Frequency Sets Screen, this key allows you to create new trunked frequency sets.

F3 Param - From the Mobile Radio Options Window, this key allows you to define various radio parameters associated with mobile radios.

F3 Remove - Used to remove a line for a channel definition, a group set definition, conventional set definition, or special call definition.

F3 Stat - From the Mobile Radio Options Window, this key is used to identify status name and identification fields associated with mobile radio options.

F3 Utilty - The Utility Function Key provides access to the Utility Window from the Current Personalities Screen. The Utility Window allows you to select a communications port setup, define environment settings, change file directories, delete personalities without exiting the program, print a personality, or change file extensions.

F4

F4 FCC - In the Trunked Frequency Set Window, this key allows you to display FCC Channel settings.

F4 MSG - From the Mobile Radio Options Window, this key is used to identify message name and identification fields associated with mobile radio options.

F4 New - From the Current Personalities screen, this key allows you to create a new radio personality. From the Currently Defined Group Sets Screen this key allows you to create a new group set. From the Currently Defined Special Call Sets Screen, this key allows you to create a new special call set.

F4 NewCnv - From the Currently Defined Frequency Sets Screen, this key allows you to create new conventional frequency sets.

F4 SpCall - From the Setup portion of the program, this key allows you to create, modify, or delete pooled special call sets.

F4 Text - From the Radio Personality Screen, the Text Select Function Key allows you to view the software revision number and software revision date for the radio when last programmed. This window also accepts additional information (in text format) which you may wish to include about a particular radio personality.

F4 User - From the Mobile Radio Options Window, this key is used to set caller display options associated with mobile radios.

F5

F5 Delete - Used to delete or remove a personality, frequency set, group set, or special call set from the data base.

F5 Progrm - The Program Function Key is enabled in the Current Personalities Screen and the Radio Personality Screen. In the Current Personalities Screen, this function writes a personality stored on disk to the radio. In the Radio Personality Screen, this key will download the personality on the screen into a radio.

F5 Scan - From the Mobile Radio Options Window, this key allows you to identify scan options associated with mobile radios.

F5 Store - Used to save to disk a frequency set, a group set, or a special call set that is currently being edited allowing you to remain in the edit function.

F6

F6 Desk - From the Mobile Radio Options Window, this key is used to define the desktop options associated with the mobile radio.

F6 Print - This function allows you to obtain a hard (paper) copy of the personality data stored in memory. This key is enabled in the Utility Window, and also provides the capability to print personality data to a file or to the window.

F6 Read - From the Current Personalities Screen, the Read Select Function Key provides the capability to read a specific radio personality into a file.

F6 SpCall - From the Radio Personality Screen, this key enables you to access the Special Calls Window and allowing you to create, modify, or delete a special call set.

F7

F7 Ext - The Extension Select Function Key is accessed in the Utility Window, and allows you to define a new three letter default extension.

F7 Mobile - From the Radio Personality Screen, this key allows you to define options associated with mobile radios.

F7 Option - From the Trunked Frequency Set Window, this key allows you to define options associated with a trunked frequency set. From the Conventional Frequency Set Window, this key allows you to define options associated with a conventional frequency set. From the Special Call Set Window, this key allows you to define options associated with the special call set.

F7 SysScn - From the Radio Personality Screen, this key is used to defined wide area scan information associated with the MTD EDACS radio.

F8

F8 More - In either the Radio Personality Screen or the Mobile Radio Options Window, this key can be used as a toggle switch to enable additional function keys associated with the window.

F9

F9 Help - Is used to provide assistance from any screen or window. Whenever you have a question about the execution of an operation, select this key. There are two levels of help messages:

Field Level Help messages are provided from any screen or any window by simply pressing the **F9 Help** key and provides additional information on the field in question.

Window Level Help messages are provided by pressing the **Shift F9 Help** key and describes the purpose of the data presented in the window.

F10

F10 Back - When this key is pressed you will return to a previous window, making it active again for further revisions or data entry. In some cases, it will return control of the program to the Current Personalities Screen.

F10 Exit - When selected from the Current Personalities Screen, the program is terminated and you are returned to the control of your disk operating system (DOS).

APPENDIX C
ACCEPTABLE VALUES

Input Field	Acceptable Values	Default Value
Valid Radio		
Display Characters	A-Z, 0-9, +, -, <, >, =, *, /, \, (,),	blank
Agency Partition Data		
Number of Agencies	2, 4, 8, 16, 32	blank
Fleets per Agency	256, 128, 64, 32, 16	blank
Frequency Range		
800	806 - 870	806 - 870
900	896 - 941	896 - 941
Currently Defined Frequency Sets Trunked Frequency Sets		
Tx Freq	800 - 806-870 must be evenly divisible by .0125 (12.5 KHz) 900 - 896-941 must be evenly divisible by .0125 (12.5 KHz)	blank
Rx Freq	800 - 806-870 must be evenly divisible by .0125 (12.5 KHz) 900 - 896-941 must be evenly divisible by .0125 (12.5 KHz)	Tx Frequency

Input Field	Acceptable Values	Default Value
Currently Defined Frequency Sets Trunked Set Options		
Default Site ID	1 - 31	blank
High Power	On or Off	Off
Max Channels Allowed	0 - 25	blank
Conventional Frequency Sets		
Name	Any eight character valid display name.	blank
Tx Freq	800 - 806-870 must be evenly divisible by .0125 (12.5 KHz) 900 - 896-941 must be evenly divisible by .0125 (12.5 KHz)	blank
Rx Freq	800 - 806-870 must be evenly divisible by .0125 (12.5 KHz) 900 - 896-941 must be evenly divisible by .0125 (12.5 KHz)	Tx Frequency plus 45
Tx CG	Tone Channel Guard range 67.0 - 210.7. Digital Channel Guard range - see CG Table (Appendix D).	blank
STE	On or Off	Off
Rx CG	Tone Channel Guard range 67.0 - 210.7. Digital Channel Guard range - see CG Table (Appendix D).	blank

Input Field	Acceptable Values	Default Value
Conventional Frequency Sets (Continued)		
TXL	On or Off	Off
CCT	On or Off	Off
OS	Yes or No	No
Scan	On or Off	Off
Port PWR	Hi or Low	Low
Conventional Set Options		
Home Channel	A currently defined channel in the freq set.	blank
Wide Scan Channel	A currently defined channel in the freq set.	blank
Currently Defined Group Sets Group Set Summary		
Name	Any eight character valid DOS file name.	blank
Group ID	0 - 2048	blank
Type	Normal, Encode, or Decode	Normal
Scan	On or Off	Off
Knob Select	On or Off	Off
ICall	On or Off	On
Group Set Options		
Home Group	Any eight character display name.	blank

Input Field	Acceptable Values	Default Value
Currently Defined Special Call Sets		
Special Call Set		
Name	Any eight character valid DOS file name.	blank
Type	TELE, DTMF, CAL1, ALL	TELE
Number	If DTMF or ALL: no entry allowed If TELE: up to 26 digits - 0 - 9, or a blank If CAL1 (Indiv Call): 1 - 16382	blank
Keypad Limit Options		
Keypad Limits	Range or None	Range
Logical ID Lower Limit	1- 16382	1
Logical ID Upper Limit	1- 16382	16382
Radio Personality		
System Name	Any eight character valid display name.	blank
Freq Set	Must match a set already in the personality or a set on disk.	blank
Type	T, C, or blank	blank
Site	In range of 0 - 31	blank
Unit	In range of 1- 16382 inclusive	blank
Group Set	Must match a set already in the personality or a set on disk.	blank
Spc Set	Must match a set already in the personality or a set on disk.	blank

Input Field	Acceptable Values	Default Value
Radio Personality (Continued)		
Emg Aud	On or Off	Off
Emg Dsp	On or Off	Off
FS Chan	The channel specified here must be defined in the associated frequency set.	blank
Mobile Radio Options		
Failsoft Display	Yes or No	No
Supervisory	Yes or No	No
CCT Timeouts	0 to 250 secs in 10 sec increments	blank
Display Timeouts	0 to 7.5 secs in .5 sec increments	blank
Indiv Call Timeouts	0 to 75 secs in 5 sec increments	blank
Special Call Timeouts	0 to 75 secs in 5 sec increments	blank
Data Lockout Timeouts	0, 5, 10, or 20	blank
Scan Lockout Timeouts	0, 5, 10, or 20	blank
Test Set	pre-defined conventional frequency set name	blank
Ramp Wrap	On or Off	Off
Auto Login	On or Off	Off
Hookswitch	Normal or Inverted	Inverted
Off Hook Fnc	Yes or No	No
Individual ID	Yes or No	No
Group ID	Yes or No	No

Input Field	Acceptable Values	Default Value
Mobile Radio Options(Continued)		
Alpha Mapping	Yes or No	No
Home System	pre-defined system name in the current personality	blank
Minimum Volume	0 to 15	blank
Emer Button	Enable or Disable	Disable
Home Button	Enable or Disable	Disable
Menu Options		
Menu 1	Special, Scan On/Off, Scan Add/Del, Ext Alarm, Status, Message, Disabled	Special
Menu 2	Special, Scan On/Off, Scan Add/Del, Ext Alarm, Status, Message, Disabled	Scan On/Off
Menu 3 - Menu 6	Special, Scan On/Off, Scan Add/Del, Ext Alarm, Status, Message, Disabled	Disabled
Initial Settings		
Power Up System/ Group	Enable or Disable	Disable
System	pre-defined system name in the current personality	blank

Input Field	Acceptable Values	Default Value
Initial Settings (Continued)		
Group	pre-defined group name for trunked systems, or pre- defined channel name for conventional systems	blank
Power Up Volume State	Enable or Disable	Disable
Volume	0 to 15	15
Power Up Scan	Enable or Disable	Disable
Scan State	Enable or Disable	Disable
Radio Parameters		
Channel Set Expansion	On or Off	Off
Alarm Power Up State	Enabled or Disabled	Disabled
External Alarm Type	Call Ind, 1 Pulse, 3 Pulse	Call Ind
Radio Operation	Normal, Test Unit, Stand Alone, CC Mon	Normal
Test Unit System	pre-defined system name in the current personality	blank
Data Only Radio	Yes or No	No
Data Host Radio	Yes or No	No
Queued Message Beep	0 - 510 milliseconds	blank
Conventional Msg Beep	Yes or No	Yes

Input Field	Acceptable Values	Default Value
User Control Options		
Radio Alert Tones	Single or Continuous	Single
Audible Range Alert	Enable or Disable	Disable
Power Up Tone	Enable or Disable	Disable
Tone On Working Channel	Enable or Disable	Enable
Base Mobile Operation	Enable or Disable	Disable
Rx Call Alert Tones	Enable or Disable	Disable
Display ICON Location	Left or Right	Left
Display Delimiter	any alphanumeric character	*
Scan Options		
Scan TX Select	Selected or Autoselect	Selected
Scan after TX	Active or Off	Active
Hang Delay	0 to 15.5 in.5 sec increments	2.00
Home Group Scan	Auto or Decoded	Decoded
Desk Top Options		
System	must match one of the first 16 pre-defined system names in the current personality	blank
Group	must match one of the first 16 pre-defined group names corresponding to the above named system	blank
Fixed Volume	Yes or No	No

Input Field	Acceptable Values	Default Value
Status Keypad Definitions		
Name	Any eight character valid display name.	blank
ID	0 to 128	blank
Message Keypad Definitions		
Name	Any eight character valid display name.	blank
ID	0 to 128	blank
Wide Area Scan		
CC Loop Count	2, 6, 10, 15	2
Prior. Wide Scan Timer	1.1, 2.2, 3.3, 4.3	4.3
Wide area Scan	- - On - -, - - Off -, - - Pri -, - -N/A -	either - - - - - - when no choice, - - Off - system eliminated, or - - N/A- conventional system
Program Radio Window		
Selected Filename	Any eight character alphabetic valid DOS file name that corresponds to a currently defined personality.	The highlighted name in the current personalities screen.
Unit Type	MTD	MTD

Input Field	Acceptable Values	Default Value
Program Radio/Logical ID		
Logical ID	0 - 16382	blank
Filename	Any eight character alphabetic valid DOS file name that corresponds to a currently defined personality.	The selected name in the Program Radio Window Filename field.
Read Radio into the File		
Enter Filename	Valid DOS file name	blank
Unit Type	MTD	MTD
Current PersonalitiesUtilityWindow Communications Port Setup		
COMM Port	1 or 2	1
Environment Settings		
Free Space Calculation	Enabled or Disabled	Enabled
Print Personality		
Current Directory	valid directory	last directory specified
Personality	any valid personality	last personality specified
Reports	Brief or Full	Brief
Output to	Printer, Screen, or File	Printer
File Name	any valid file name	last file name specified
Printer	1, 2, 3, or 4	1

APPENDIX D

PRIMARY & EQUIVALENT DIGITAL CODES

PRIM. CODE	EQUIVALENT CODE	PRIM. CODE	EQUIVALENT CODE	PRIM. CODE	EQUIVALENT CODE
023	340,766	133	413,620	237	464,642,772
025		134	273	243	267,342
026	566	135	205,610	245	370,554
031	374,643	136	502,712	246	542,653
032		142	174,270	252	661
036	137	143	333	254	314,612,706
037	560,627	144	466,666	255	425
043	355	145	525	262	316,431,730
047	375,707	147	303,306,761	266	655
051	520,771	150	256,703	271	427,510,762
053		152	366,415	274	652
054	405,675	153	606,630	276	326,432
056	465,656	155	233,660	307	362,565
060	116,737	156	517,741	311	330,456,561
065	301	157	322,503	312	515,663,743
066	734	161	345,532	315	321,673
067	516,720	162	416	317	546,614,751
071	603,717,746	163	460,607,654	324	343,570
072	470,701	164	207,732	325	550,626
073	640	165	354	331	372,507
074	360,721	171	265,426	332	433,552
075	501,624	176	244,417	344	471,664,715
076	203,754	212	253	346	616,635,724
104	226,557	213	263,736	351	353,435
107	365	217	371,453,530	356	521
114	327,615	222	445,457,575	363	436,443,444,662
115	534,674	223	350,475,750	446	467,511,672
117	411,756	224	313,506,574	447	473,474,731,744
122	535	225	536	452	524,765
123	632,657	227	261,567	454	513,545,564
125	173	231	504,631,636,745	455	533,551
127	412,441,711	234	423,563,621,713	462	472,623,725
130	364,641	235	611,671,723	523	647,726
131	572,702	236	251,704,742	526	562,645
132	605,634,714				

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APPENDIX E

CHANNEL GUARD TONE FREQUENCIES

STANDARD TONE FREQUENCIES (Hz)				
67.0	88.5	107.2	131.8	167.9
71.9	91.5	110.9	136.5	173.8
74.4	94.8	114.8	141.3	179.9
77.0	97.4	118.8	146.2	186.2
79.7	100.0	123.0	151.4	192.8
82.5	103.5	127.3	156.7	203.5
85.4			162.2	210.7

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APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
1	806.0125	41	806.5125	81	807.0125	121	807.5125
2	806.0250	42	806.5250	82	807.0250	122	807.5250
3	806.0375	43	806.5375	83	807.0375	123	807.5375
4	806.0500	44	806.5500	84	807.0500	124	807.5500
5	806.0625	45	806.5625	85	807.0625	125	807.5625
6	806.0750	46	806.5750	86	807.0750	126	807.5750
7	806.0875	47	806.5875	87	807.0875	127	807.5875
8	806.1000	48	806.6000	88	807.1000	128	807.6000
9	806.1125	49	806.6125	89	807.1125	129	807.6125
10	806.1250	50	806.6250	90	807.1250	130	807.6250
11	806.1375	51	806.6375	91	807.1375	131	807.6375
12	806.1500	52	806.6500	92	807.1500	132	807.6500
13	806.1625	53	806.6625	93	807.1625	133	807.6625
14	806.1750	54	806.6750	94	807.1750	134	807.6750
15	806.1875	55	806.6875	95	807.1875	135	807.6875
16	806.2000	56	806.7000	96	807.2000	136	807.7000
17	806.2125	57	806.7125	97	807.2125	137	807.7125
18	806.2250	58	806.7250	98	807.2250	138	807.7250
19	806.2375	59	806.7375	99	807.2375	139	807.7375
20	806.2500	60	806.7500	100	807.2500	140	807.7500
21	806.2625	61	806.7625	101	807.2625	141	807.7625
22	806.2750	62	806.7750	102	807.2750	142	807.7750
23	806.2875	63	806.7875	103	807.2875	143	807.7875
24	806.3000	64	806.8000	104	807.3000	144	807.8000
25	806.3125	65	806.8125	105	807.3125	145	807.8125
26	806.3250	66	806.8250	106	807.3250	146	807.8250
27	806.3375	67	806.8375	107	807.3375	147	807.8375
28	806.3500	68	806.8500	108	807.3500	148	807.8500
29	806.3625	69	806.8625	109	807.3625	149	807.8625
30	806.3750	70	806.8750	110	807.3750	150	807.8750
31	806.3875	71	806.8875	111	807.3875	151	807.8875
32	806.4000	72	806.9000	112	807.4000	152	807.9000
33	806.4125	73	806.9125	113	807.4125	153	807.9125
34	806.4250	74	806.9250	114	807.4250	154	807.9250
35	806.4375	75	806.9375	115	807.4375	155	807.9375
36	806.4500	76	806.9500	116	807.4500	156	807.9500
37	806.4625	77	806.9625	117	807.4625	157	807.9625
38	806.4750	78	806.9750	118	807.4750	158	807.9750
39	806.4875	79	806.9875	119	807.4875	159	807.9875
40	806.5000	80	807.0000	120	807.5000	160	808.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
161	808.0125	201	808.5125	241	809.0125	281	809.5125
162	808.0250	202	808.5250	242	809.0250	282	809.5250
163	808.0375	203	808.5375	243	809.0375	283	809.5375
164	808.0500	204	808.5500	244	809.0500	284	809.5500
165	808.0625	205	808.5625	245	809.0625	285	809.5625
166	808.0750	206	808.5750	246	809.0750	286	809.5750
167	808.0875	207	808.5875	247	809.0875	287	809.5875
168	808.1000	208	808.6000	248	809.1000	288	809.6000
169	808.1125	209	808.6125	249	809.1125	289	809.6125
170	808.1250	210	808.6250	250	809.1250	290	809.6250
171	808.1375	211	808.6375	251	809.1375	291	809.6375
172	808.1500	212	808.6500	252	809.1500	292	809.6500
173	808.1625	213	808.6625	253	809.1625	293	809.6625
174	808.1750	214	808.6750	254	809.1750	294	809.6750
175	808.1875	215	808.6875	255	809.1875	295	809.6875
176	808.2000	216	808.7000	256	809.2000	296	809.7000
177	808.2125	217	808.7125	257	809.2125	297	809.7125
178	808.2250	218	808.7250	258	809.2250	298	809.7250
179	808.2375	219	808.7375	259	809.2375	299	809.7375
180	808.2500	220	808.7500	260	809.2500	300	809.7500
181	808.2625	221	808.7625	261	809.2625	301	809.7625
182	808.2750	222	808.7750	262	809.2750	302	809.7750
183	808.2875	223	808.7875	263	809.2875	303	809.7875
184	808.3000	224	808.8000	264	809.3000	304	809.8000
185	808.3125	225	808.8125	265	809.3125	305	809.8125
186	808.3250	226	808.8250	266	809.3250	306	809.8250
187	808.3375	227	808.8375	267	809.3375	307	809.8375
188	808.3500	228	808.8500	268	809.3500	308	809.8500
189	808.3625	229	808.8625	269	809.3625	309	809.8625
190	808.3750	230	808.8750	270	809.3750	310	809.8750
191	808.3875	231	808.8875	271	809.3875	311	809.8875
192	808.4000	232	808.9000	272	809.4000	312	809.9000
193	808.4125	233	808.9125	273	809.4125	313	809.9125
194	808.4250	234	808.9250	274	809.4250	314	809.9250
195	808.4375	235	808.9375	275	809.4375	315	809.9375
196	808.4500	236	808.9500	276	809.4500	316	809.9500
197	808.4625	237	808.9625	277	809.4625	317	809.9625
198	808.4750	238	808.9750	278	809.4750	318	809.9750
199	808.4875	239	808.9875	279	809.4875	319	809.9875
200	808.5000	240	809.0000	280	809.5000	320	810.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
321	810.0125	361	810.5125	401	811.0125	441	811.5125
322	810.0250	362	810.5250	402	811.0250	442	811.5250
323	810.0375	363	810.5375	403	811.0375	443	811.5375
324	810.0500	364	810.5500	404	811.0500	444	811.5500
325	810.0625	365	810.5625	405	811.0625	445	811.5625
326	810.0750	366	810.5750	406	811.0750	446	811.5750
327	810.0875	367	810.5875	407	811.0875	447	811.5875
328	810.1000	368	810.6000	408	811.1000	448	811.6000
329	810.1125	369	810.6125	409	811.1125	449	811.6125
330	810.1250	370	810.6250	410	811.1250	450	811.6250
331	810.1375	371	810.6375	411	811.1375	451	811.6375
332	810.1500	372	810.6500	412	811.1500	452	811.6500
333	810.1625	373	810.6625	413	811.1625	453	811.6625
334	810.1750	374	810.6750	414	811.1750	454	811.6750
335	810.1875	375	810.6875	415	811.1875	455	811.6875
336	810.2000	376	810.7000	416	811.2000	456	811.7000
337	810.2125	377	810.7125	417	811.2125	457	811.7125
338	810.2250	378	810.7250	418	811.2250	458	811.7250
339	810.2375	379	810.7375	419	811.2375	459	811.7375
340	810.2500	380	810.7500	420	811.2500	460	811.7500
341	810.2625	381	810.7625	421	811.2625	461	811.7625
342	810.2750	382	810.7750	422	811.2750	462	811.7750
343	810.2875	383	810.7875	423	811.2875	463	811.7875
344	810.3000	384	810.8000	424	811.3000	464	811.8000
345	810.3125	285	810.8125	425	811.3125	465	811.8125
346	810.3250	386	810.8250	426	811.3250	466	811.8250
347	810.3375	387	810.8375	427	811.3375	467	811.8375
348	810.3500	388	810.8500	428	811.3500	468	811.8500
349	810.3625	389	810.8625	429	811.3625	469	811.8625
350	810.3750	390	810.8750	430	811.3750	470	811.8750
351	810.3875	391	810.8875	431	811.3875	471	811.8875
352	810.4000	392	810.9000	432	811.4000	472	811.9000
353	810.4125	393	810.9125	433	811.4125	473	811.9125
354	810.4250	394	810.9250	434	811.4250	474	811.9250
355	810.4375	395	810.9375	435	811.4375	475	811.9375
356	810.4500	396	810.9500	436	811.4500	476	811.9500
357	810.4625	397	810.9625	437	811.4625	477	811.9625
358	810.4750	398	810.9750	438	811.4750	478	811.9750
359	810.4875	399	810.9875	439	811.4875	479	811.9875
360	810.5000	400	811.0000	440	811.5000	480	812.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
481	812.0125	521	812.5125	561	813.0125	601	813.5125
482	812.0250	522	812.5250	562	813.0250	602	813.5250
483	812.0375	523	812.5375	563	813.0375	603	813.5375
484	812.0500	524	812.5500	564	813.0500	604	813.5500
485	812.0625	525	812.5625	565	813.0625	605	813.5625
486	812.0750	526	812.5750	566	813.0750	606	813.5750
487	812.0875	527	812.5875	567	813.0875	607	813.5875
488	812.1000	528	812.6000	568	813.1000	608	813.6000
489	812.1125	529	812.6125	569	813.1125	609	813.6125
490	812.1250	530	812.6250	570	813.1250	610	813.6250
491	812.1375	531	812.6375	571	813.1375	611	813.6375
492	812.1500	532	812.6500	572	813.1500	612	813.6500
493	812.1625	533	812.6625	573	813.1625	613	813.6625
494	812.1750	534	812.6750	574	813.1750	614	813.6750
495	812.1875	535	812.6875	575	813.1875	615	813.6875
496	812.2000	536	812.7000	756	813.2000	616	813.7000
497	812.2125	537	812.7125	577	813.2125	617	813.7125
498	812.2250	538	812.7250	578	813.2250	618	813.7250
499	812.2375	539	812.7375	579	813.2375	619	813.7375
500	812.2500	540	812.7500	580	813.2500	620	813.7500
501	812.2625	541	812.7625	581	813.2625	621	813.7625
502	812.2750	542	812.7750	582	813.2750	622	813.7750
503	812.2875	543	812.7875	583	813.2875	623	813.7875
504	812.3000	544	812.8000	584	813.3000	624	813.8000
505	812.3125	545	812.8125	585	813.3125	625	813.8125
506	812.3250	546	812.8250	586	813.3250	626	813.8250
507	812.3375	547	812.8375	587	813.3375	627	813.8375
508	812.3500	548	812.8500	588	813.3500	628	813.8500
509	812.3625	549	812.8625	589	813.3625	629	813.8625
510	812.3750	550	812.8750	590	813.3750	630	813.8750
511	812.3875	551	812.8875	591	811.3875	631	813.8875
512	812.4000	552	812.9000	592	811.4000	632	813.9000
513	812.4125	553	812.9125	593	811.4125	633	813.9125
514	812.4250	554	812.9250	594	811.4250	634	813.9250
515	812.4375	555	812.9375	595	811.4375	635	813.9375
516	812.4500	556	812.9500	596	811.4500	636	813.9500
517	812.4625	557	812.9625	597	811.4625	637	813.9625
518	812.4750	558	812.9750	598	811.4750	638	813.9750
519	812.4875	559	812.9875	599	811.4875	639	813.9875
520	812.5000	560	813.0000	600	811.5000	640	814.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
641	812.0125	681	812.5125	721	813.0125	761	813.5125
642	812.0250	682	812.5250	722	813.0250	762	813.5250
643	812.0375	683	812.5375	723	813.0375	763	813.5375
644	812.0500	684	812.5500	724	813.0500	764	813.5500
645	812.0625	685	812.5625	725	813.0625	765	813.5625
646	812.0750	686	812.5750	726	813.0750	766	813.5750
647	812.0875	687	812.5875	727	813.0875	767	813.5875
648	812.1000	688	812.6000	728	813.1000	768	813.6000
649	812.1125	689	812.6125	729	813.1125	769	813.6125
650	812.1250	690	812.6250	730	813.1250	770	813.6250
651	812.1375	691	812.6375	731	813.1375	771	813.6375
652	812.1500	692	812.6500	732	813.1500	772	813.6500
653	812.1625	693	812.6625	733	813.1625	773	813.6625
654	812.1750	694	812.6750	734	813.1750	774	813.6750
655	812.1875	695	812.6875	735	813.1875	775	813.6875
656	812.2000	696	812.7000	736	813.2000	776	813.7000
657	812.2125	697	812.7125	737	813.2125	777	813.7125
658	812.2250	698	812.7250	738	813.2250	778	813.7250
659	812.2375	699	812.7375	739	813.2375	779	813.7375
660	812.2500	700	812.7500	740	813.2500	780	813.7500
661	812.2625	701	812.7625	741	813.2625	781	813.7625
662	812.2750	702	812.7750	742	813.2750	782	813.7750
663	812.2875	703	812.7875	743	813.2875	783	813.7875
664	812.3000	704	812.8000	744	813.3000	784	813.8000
665	812.3125	705	812.8125	745	813.3125	785	813.8125
666	812.3250	706	812.8250	746	813.3250	786	813.8250
667	812.3375	707	812.8375	747	813.3375	787	813.8375
668	812.3500	708	812.8500	748	813.3500	788	813.8500
669	812.3625	709	812.8625	749	813.3625	789	813.8625
670	812.3750	710	812.8750	750	813.3750	790	813.8750
671	812.3875	711	812.8875	751	813.3875	791	813.8875
672	812.4000	712	812.9000	752	813.4000	792	813.9000
673	812.4125	713	812.9125	753	813.4125	793	813.9125
674	812.4250	714	812.9250	754	813.4250	794	813.9250
675	812.4375	715	812.9375	755	813.4375	795	813.9375
676	812.4500	716	812.9500	756	813.4500	796	813.9500
677	812.4625	717	812.9625	757	813.4625	797	813.9625
678	812.4750	718	812.9750	758	813.4750	798	813.9750
679	812.4875	719	812.9875	759	813.4875	799	813.9875
680	812.5000	720	813.0000	760	813.5000	800	814.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
801	816.0125	841	816.5125	881	817.0125	921	817.5125
802	816.0250	842	816.5250	882	817.0250	922	817.5250
803	816.0375	843	816.5375	883	817.0375	923	817.5375
804	816.0500	844	816.5500	884	817.0500	924	817.5500
805	816.0625	845	816.5625	885	817.0625	925	817.5625
806	816.0750	846	816.5750	886	817.0750	926	817.5750
807	816.0875	847	816.5875	887	817.0875	927	817.5875
808	816.1000	848	816.6000	888	817.1000	928	817.6000
809	816.1125	849	816.6125	889	817.1125	929	817.6125
810	816.1250	850	816.6250	890	817.1250	930	817.6250
811	816.1375	851	816.6375	891	817.1375	931	817.6375
812	816.1500	852	816.6500	892	817.1500	932	817.6500
813	816.1625	853	816.6625	893	817.1625	933	817.6625
814	816.1750	854	816.6750	894	817.1750	934	817.6750
815	816.1875	855	816.6875	895	817.1875	935	817.6875
816	816.2000	856	816.7000	896	817.2000	936	817.7000
817	816.2125	857	816.7125	897	817.2125	927	817.7125
818	816.2250	858	816.7250	898	817.2250	938	817.7250
819	816.2375	859	816.7375	899	817.2375	939	817.7375
820	816.2500	860	816.7500	900	817.2500	940	817.7500
821	816.2625	861	816.7625	901	817.2625	941	817.7625
822	816.2750	862	816.7750	902	817.2750	942	817.7750
823	816.2875	863	816.7875	903	817.2875	943	817.7875
824	816.3000	864	816.8000	904	817.3000	944	817.8000
825	816.3125	865	816.8125	905	817.3125	945	817.8125
826	816.3250	866	816.8250	906	817.3250	946	817.8250
827	816.3375	867	816.8375	907	817.3375	947	817.8375
828	816.3500	868	816.8500	908	817.3500	948	817.8500
829	816.3625	869	816.8625	909	817.3625	949	817.8625
830	816.3750	870	816.8750	910	817.3750	950	817.8750
831	816.3875	871	816.8875	911	817.3875	951	817.8875
832	816.4000	872	816.9000	912	817.4000	952	817.9000
833	816.4125	873	816.9125	913	817.4125	953	817.9125
834	816.4250	874	816.9250	914	817.4250	954	817.9250
835	816.4375	875	816.9375	915	817.4375	966	817.9375
836	816.4500	876	816.9500	916	817.4500	956	817.9500
837	816.4625	877	816.9625	917	817.4625	957	817.9625
838	816.4750	878	816.9750	918	817.4750	958	817.9750
839	816.4875	879	816.9875	919	817.4875	959	817.9875
840	816.5000	880	817.0000	920	817.5000	960	818.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
961	818.0125	1001	818.5125	1041	819.0125	1081	819.5125
962	818.0250	1002	818.5250	1042	819.0250	1082	819.5250
963	818.0375	1003	818.5375	1043	819.0375	1083	819.5375
964	818.0500	1004	818.5500	1044	819.0500	1084	819.5500
965	818.0625	1005	818.5625	1045	819.0625	1085	819.5625
966	818.0750	1006	818.5750	1046	819.0750	1086	819.5750
967	818.0875	1007	818.5875	1047	819.0875	1087	819.5875
968	818.1000	1008	818.6000	1048	819.1000	1088	819.6000
969	818.1125	1009	818.6125	1049	819.1125	1089	819.6125
970	818.1250	1010	818.6250	1050	819.1250	1090	819.6250
971	818.1375	1011	818.6375	1051	819.1375	1091	819.6375
972	818.1500	1012	818.6500	1052	819.1500	1092	819.6500
973	818.1625	1013	818.6625	1053	819.1625	1093	819.6625
974	818.1750	1014	818.6750	1054	819.1750	1094	819.6750
975	818.1875	1015	818.6875	1055	819.1875	1095	819.6875
976	818.2000	1016	818.7000	1056	819.2000	1096	819.7000
977	818.2125	1017	818.7125	1057	819.2125	1097	819.7125
978	818.2250	1018	818.7250	1058	819.2250	1098	819.7250
979	818.2375	1019	818.7375	1059	819.2375	1099	819.7375
980	818.2500	1020	818.7500	1060	819.2500	1100	819.7500
981	818.2625	1021	818.7625	1061	819.2625	1101	819.7625
982	818.2750	1022	818.7750	1062	819.2750	1102	819.7750
983	818.2875	1023	818.7875	1063	819.2875	1103	819.7875
984	818.3000	1024	818.8000	1064	819.3000	1104	819.8000
985	818.3125	1025	818.8125	1065	819.3125	1105	819.8125
986	818.3250	1026	818.8250	1066	819.3250	1106	819.8250
987	818.3375	1027	818.8375	1067	819.3375	1107	819.8375
988	818.3500	1028	818.8500	1068	819.3500	1108	819.8500
989	818.3625	1029	818.8625	1069	819.3625	1109	819.8625
990	818.3750	1030	818.8750	1070	819.3750	1110	819.8750
991	818.3875	1031	818.8875	1071	819.3875	1111	819.8875
992	818.4000	1032	818.9000	1072	819.4000	1112	819.9000
993	818.4125	1033	818.9125	1073	819.4125	1113	819.9125
994	818.4250	1034	818.9250	1074	819.4250	1114	819.9250
995	818.4375	1035	818.9375	1075	819.4375	1115	819.9375
996	818.4500	1036	818.9500	1076	819.4500	1116	819.9500
997	818.4625	1037	818.9625	1077	819.4625	1117	819.9625
998	818.4750	1038	818.9750	1078	819.4750	1118	819.9750
999	818.4875	1039	818.9875	1079	819.4875	1119	819.9875
1000	818.5000	1040	819.0000	1080	819.5000	1120	820.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
1121	820.0125	1161	820.5125	1201	821.0125	1241	821.5125
1122	820.0250	1162	820.5250	1202	821.0250	1242	821.5250
1123	820.0375	1163	820.5375	1203	821.0375	1243	821.5375
1124	820.0500	1164	820.5500	1204	821.0500	1244	821.5500
1125	820.0625	1165	820.5625	1205	821.0625	1245	821.5625
1126	820.0750	1166	820.5750	1206	821.0750	1246	821.5750
1126	820.0875	1167	820.5875	1207	821.0875	1247	821.5875
1128	820.1000	1168	820.6000	1208	821.1000	1248	821.6000
1129	820.1125	1169	820.6125	1209	821.1125	1249	821.6125
1130	820.1250	1170	820.6250	1210	821.1250	1250	821.6250
1131	820.1375	1171	820.6375	1211	821.1375	1251	821.6375
1132	820.1500	1172	820.6500	1212	821.1500	1252	821.6500
1133	820.1625	1173	820.6625	1213	821.1625	1253	821.6625
1134	820.1750	1174	820.6750	1214	821.1750	1254	821.6750
1135	820.1875	1175	820.6875	1215	821.1875	1255	821.6875
1136	820.2000	1176	820.7000	1216	821.2000	1256	821.7000
1137	820.2125	1177	820.7125	1217	821.2125	1257	821.7125
1138	820.2250	1178	820.7250	1218	821.2250	1258	821.7250
1139	820.2375	1179	820.7375	1219	821.2375	1259	821.7375
1140	820.2500	1180	820.7500	1220	821.2500	1260	821.7500
1141	820.2625	1181	820.7625	1221	821.2625	1261	821.7625
1142	820.2750	1182	820.7750	1222	821.2750	1262	821.7750
1143	820.2875	1183	820.7875	1223	821.2875	1263	821.7875
1144	820.3000	1184	820.8000	1224	821.3000	1264	821.8000
1145	820.3125	1185	820.8125	1225	821.3125	1265	821.8125
1146	820.3250	1186	820.8250	1226	821.3250	1266	821.8250
1147	820.3375	1187	820.8375	1227	821.3375	1267	821.8375
1148	820.3500	1188	820.8500	1228	821.3500	1268	821.8500
1149	820.3625	1189	820.8625	1229	821.3625	1269	821.8625
1150	820.3750	1190	820.8750	1230	821.3750	1270	821.8750
1151	820.3875	1191	820.8875	1231	821.3875	1271	821.8875
1152	820.4000	1192	820.9000	1232	821.4000	1272	821.9000
1153	820.4125	1193	820.9125	1233	821.4125	1273	821.9125
1154	820.4250	1194	820.9250	1234	821.4250	1274	821.9250
1155	820.4375	1195	820.9375	1235	821.4375	1275	821.9375
1156	820.4500	1196	820.9500	1236	821.4500	1276	821.9500
1157	820.4625	1197	820.9625	1237	821.4625	1277	821.9625
1158	820.4750	1198	820.9750	1238	821.4750	1278	821.9750
1159	820.4875	1199	820.9875	1239	821.4875	1279	821.9875
1160	820.5000	1200	821.0000	1240	821.5000	1280	822.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
1281	822.0125	1321	822.5125	1361	823.0125	1401	823.5125
1282	822.0250	1322	822.5250	1362	823.0250	1402	823.5250
1283	822.0375	1323	822.5375	1363	823.0375	1403	823.5375
1284	822.0500	1324	822.5500	1364	823.0500	1404	823.5500
1285	822.0625	1325	822.5625	1365	823.0625	1405	823.5625
1286	822.0750	1326	822.5750	1366	823.0750	1406	823.5750
1287	822.0875	1327	822.5875	1367	823.0875	1407	823.5875
1288	822.1000	1328	822.6000	1368	823.1000	1408	823.6000
1289	822.1125	1329	822.6125	1369	823.1125	1409	823.6125
1290	822.1250	1330	822.6250	1370	823.1250	1410	823.6250
1291	822.1375	1331	822.6375	1371	823.1375	1411	823.6375
1292	822.1500	1332	822.6500	1372	823.1500	1412	823.6500
1293	822.1625	1333	822.6625	1373	823.1625	1413	823.6625
1294	822.1750	1334	822.6750	1374	823.1750	1414	823.6750
1295	822.1875	1335	822.6875	1375	823.1875	1415	823.6875
1296	822.2000	1336	822.7000	1376	823.2000	1416	823.7000
1297	822.2125	1337	822.7125	1377	823.2125	1417	823.7125
1298	822.2250	1338	822.7250	1378	823.2250	1418	823.7250
1299	822.2375	1339	822.7375	1379	823.2375	1419	823.7375
1300	822.2500	1340	822.7500	1380	823.2500	1420	823.7500
1301	822.2625	1341	822.7625	1381	823.2625	1421	823.7625
1302	822.2750	1342	822.7750	1382	823.2750	1422	823.7750
1303	822.2875	1343	822.7875	1383	823.2875	1423	823.7875
1304	822.3000	1344	822.8000	1384	823.3000	1424	823.8000
1305	822.3125	1345	822.8125	1385	823.3125	1425	823.8125
1306	822.3250	1346	822.8250	1386	823.3250	1426	823.8250
1307	822.3375	1347	822.8375	1387	823.3375	1427	823.8375
1308	822.3500	1348	822.8500	1388	823.3500	1428	823.8500
1309	822.3625	1349	822.8625	1389	823.3625	1429	823.8625
1310	822.3750	1350	822.8750	1390	823.3750	1430	823.8750
1311	822.3875	1351	822.8875	1391	823.3875	1431	823.8875
1312	822.4000	1352	822.9000	1392	823.4000	1432	823.9000
1313	822.4125	1353	822.9125	1393	823.4125	1433	823.9125
1314	822.4250	1354	822.9250	1394	823.4250	1434	823.9250
1315	822.4375	1355	822.9375	1395	823.4375	1435	823.9375
1316	822.4500	1356	822.9500	1396	823.4500	1436	823.9500
1317	822.4625	1357	822.9625	1397	823.4625	1437	823.9625
1318	822.4750	1358	822.9750	1398	823.4750	1438	823.9750
1319	822.4875	1359	822.9875	1399	823.4875	1439	823.9875
1320	822.5000	1360	823.0000	1400	823.5000	1440	824.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 806-870 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
1441	824.0125	1481	824.5125				
1442	824.0250	1482	824.5250				
1443	824.0375	1483	824.5375				
1444	824.0500	1484	824.5500				
1445	824.0625	1485	824.5625				
1446	824.0750	1486	824.5750				
1447	824.0875	1487	824.5875				
1448	824.1000	1488	824.6000				
1449	824.1125	1489	824.6125				
1450	824.1250	1490	824.6250				
1451	824.1375	1491	824.6375				
1452	824.1500	1492	824.6500				
1453	824.1625	1493	824.6625				
1454	824.1750	1494	824.6750				
1455	824.1875	1495	824.6875				
1456	824.2000	1496	824.7000				
1457	824.2125	1497	824.7125				
1458	824.2250	1498	824.7250				
1459	824.2375	1499	824.7375				
1460	824.2500	1500	824.7500				
1461	824.2625	1501	824.7625				
1462	824.2750	1502	824.7750				
1463	824.2875	1503	824.7875				
1464	824.3000	1504	824.8000				
1465	824.3125	1505	824.8125				
1466	824.3250	1506	824.8250				
1467	824.3375	1507	824.8375				
1468	824.3500	1508	824.8500				
1469	824.3625	1509	824.8625				
1470	824.3750	1510	824.8750				
1471	824.3875	1511	824.8875				
1472	824.4000	1512	824.9000				
1473	824.4125	1513	824.9125				
1474	824.4250	1514	824.9250				
1475	824.4375	1515	824.9375				
1476	824.4500	1516	824.9500				
1477	824.4625	1517	824.9625				
1478	824.4750	1518	824.9750				
1479	824.4875	1519	824.9875				
1480	824.5000						

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 896-941 MHz

Page 1 of 3

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
1	896.0125	41	896.5125	81	897.0125	121	897.5125
2	896.0250	42	896.5250	82	897.0250	122	897.5250
3	896.0375	43	896.5375	83	897.0375	123	897.5375
4	896.0500	44	896.5500	84	897.0500	124	897.5500
5	896.0625	45	896.5625	85	897.0625	125	897.5625
6	896.0750	46	896.5750	86	897.0750	126	897.5750
7	896.0875	47	896.5875	87	897.0875	127	897.5875
8	896.1000	48	896.6000	88	897.1000	128	897.6000
9	896.1125	49	896.6125	89	897.1125	129	897.6125
10	896.1250	50	896.6250	90	897.1250	130	897.6250
11	896.1375	51	896.6375	91	897.1375	131	897.6375
12	896.1500	52	896.6500	92	897.1500	132	897.6500
13	896.1625	53	896.6625	93	897.1625	133	897.6625
14	896.1750	54	896.6750	94	897.1750	134	897.6750
15	896.1875	55	896.6875	95	897.1875	135	897.6875
16	896.2000	56	896.7000	96	897.2000	136	897.7000
17	896.2125	57	896.7125	97	897.2125	137	897.7125
18	896.2250	58	896.7250	98	897.2250	138	897.7250
19	896.2375	59	896.7375	99	897.2375	139	897.7375
20	896.2500	60	896.7500	100	897.2500	140	897.7500
21	896.2625	61	896.7625	101	897.2625	141	897.7625
22	896.2750	62	896.7750	102	897.2750	142	897.7750
23	896.2875	63	896.7875	103	897.2875	143	897.7875
24	896.3000	64	896.8000	104	897.3000	144	897.8000
25	896.3125	65	896.8125	105	897.3125	145	897.8125
26	896.3250	66	896.8250	106	897.3250	146	897.8250
27	896.3375	67	896.8375	107	897.3375	147	897.8375
28	896.3500	68	896.8500	108	897.3500	148	897.8500
29	896.3625	69	896.8625	109	897.3625	149	897.8625
30	896.3750	70	896.8750	110	897.3750	150	897.8750
31	896.3875	71	896.8875	111	897.3875	151	897.8875
32	896.4000	72	896.9000	112	897.4000	152	897.9000
33	896.4125	73	896.9125	113	897.4125	153	897.9125
34	896.4250	74	896.9250	114	897.4250	154	897.9250
35	896.4375	75	896.9375	115	897.4375	155	897.9375
36	896.4500	76	896.9500	116	897.4500	156	897.9500
37	896.4625	77	896.9625	117	897.4625	157	897.9625
38	896.4750	78	896.9750	118	897.4750	158	897.9750
39	896.4875	79	896.9875	119	897.4875	159	897.9875
40	896.5000	80	897.0000	120	897.5000	160	898.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 896-941 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
161	898.0125	201	898.5125	241	899.0125	281	899.5125
162	898.0250	202	898.5250	242	899.0250	282	899.5250
163	898.0375	203	898.5375	243	899.0375	283	899.5375
164	898.0500	204	898.5500	244	899.0500	284	899.5500
165	898.0625	205	898.5625	245	899.0625	285	899.5625
166	898.0750	206	898.5750	246	899.0750	286	899.5750
167	898.0875	207	898.5875	247	899.0875	287	899.5875
168	898.1000	208	898.6000	248	899.1000	288	899.6000
169	898.1125	209	898.6125	249	899.1125	289	899.6125
170	898.1250	210	898.6250	250	899.1250	290	899.6250
171	898.1375	211	898.6375	251	899.1375	291	899.6375
172	898.1500	212	898.6500	252	899.1500	292	899.6500
173	898.1625	213	898.6625	253	899.1625	293	899.6625
174	898.1750	214	898.6750	254	899.1750	294	899.6750
175	898.1875	215	898.6875	255	899.1875	295	899.6875
176	898.2000	216	898.7000	256	899.2000	296	899.7000
177	898.2125	217	898.7125	257	899.2125	297	899.7125
178	898.2250	218	898.7250	258	899.2250	298	899.7250
179	898.2375	219	898.7375	259	899.2375	299	899.7375
180	898.2500	220	898.7500	260	899.2500	300	899.7500
181	898.2625	221	898.7625	261	899.2625	301	899.7625
182	898.2750	222	898.7750	262	899.2750	302	899.7750
183	898.2875	223	898.7875	263	899.2875	303	899.7875
184	898.3000	224	898.8000	264	899.3000	304	899.8000
185	898.3125	225	898.8125	265	899.3125	305	899.8125
186	898.3250	226	898.8250	266	899.3250	306	899.8250
187	898.3375	227	898.8375	267	899.3375	307	899.8375
188	898.3500	228	898.8500	268	899.3500	308	899.8500
189	898.3625	229	898.8625	269	899.3625	309	899.8625
190	898.3750	230	898.8750	270	899.3750	310	899.8750
191	898.3875	231	898.8875	271	899.3875	311	899.8875
192	898.4000	232	898.9000	272	899.4000	312	899.9000
193	898.4125	233	898.9125	273	899.4125	313	899.9125
194	898.4250	234	898.9250	274	899.4250	314	899.9250
195	898.4375	235	898.9375	275	899.4375	315	899.9375
196	898.4500	235	898.9500	276	899.4500	316	899.9500
197	898.4625	237	898.9625	277	899.4625	317	899.9625
198	898.4750	238	898.9750	278	899.4750	318	899.9750
199	898.4875	239	898.9875	279	899.4875	319	899.9875
200	898.5000	240	899.0000	280	899.5000	320	900.0000

APPENDIX F
CHANNEL ENTRY NUMBERS
FREQUENCY RANGE 896-941 MHz

Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.	Tx FCC Channel	Trans. Freq.
321	900.0125	361	900.5125	401	901.0125	441	901.5125
322	900.0250	362	900.5250	402	901.0250	442	901.5250
323	900.0375	363	900.5375	403	901.0375	443	901.5375
324	900.0500	364	900.5500	404	901.0500	444	901.5500
325	900.0625	365	900.5625	405	901.0625	445	901.5625
326	900.0750	366	900.5750	406	901.0750	446	901.5750
327	900.0875	367	900.5875	407	901.0875	447	901.5875
328	900.1000	368	900.6000	408	901.1000	448	901.6000
329	900.1125	369	900.6125	409	901.1125	449	901.6125
330	900.1250	370	900.6250	410	901.1250	450	901.6250
331	900.1375	371	900.6375	411	901.1375	451	901.6375
332	900.1500	372	900.6500	412	901.1500	452	901.6500
333	900.1625	373	900.6625	413	901.1625	453	901.6625
334	900.1750	374	900.6750	414	901.1750	454	901.6750
335	900.1875	375	900.6875	415	901.1875	455	901.6875
336	900.2000	376	900.7000	416	901.2000	456	901.7000
337	900.2125	377	900.7125	417	901.2125	457	901.7125
338	900.2250	378	900.7250	418	901.2250	458	901.7250
339	900.2375	379	900.7375	419	901.2375	459	901.7375
340	900.2500	380	900.7500	420	901.2500	460	901.7500
341	900.2625	381	900.7625	421	901.2625	461	901.7625
342	900.2750	382	900.7750	422	901.2750	462	901.7750
343	900.2875	383	900.7875	423	901.2875	463	901.7875
344	900.3000	384	900.8000	424	901.3000	464	901.8000
345	900.3125	285	900.8125	425	901.3125	465	901.8125
346	900.3250	386	900.8250	426	901.3250	466	901.8250
347	900.3375	387	900.8375	427	901.3375	467	901.8375
348	900.3500	388	900.8500	428	901.3500	468	901.8500
349	900.3625	389	900.8625	429	901.3625	469	901.8625
350	900.3750	390	900.8750	430	901.3750	470	901.8750
351	900.3875	391	900.8875	431	901.3875	471	901.8875
352	900.4000	392	900.9000	432	901.4000	472	901.9000
353	900.4125	393	900.9125	433	901.4125	473	901.9125
354	900.4250	394	900.9250	434	901.4250	474	901.9250
355	900.4375	395	900.9375	435	901.4375	475	901.9375
356	900.4500	396	900.9500	436	901.4500	476	901.9500
357	900.4625	397	900.9625	437	901.4625	477	901.9625
358	900.4750	398	900.9750	438	901.4750	478	901.9750
359	900.4875	399	900.9875	439	901.4875	479	901.9875
360	900.5000	400	901.0000	440	901.5000		

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APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet A

Maximum Number of Agencies

_____Setup Window or _____Mobile Window

Number of Agencies = 2 **Maximum Number of Fleets = 256**

Agencies = 4 Fleets = 128
Agencies = 8 Fleets = 64
Agencies = 16 Fleets = 32
Agencies = 32 Fleets = 16

AGCY NO.	NO. OF FLEETS	AGCY NO.	NO. OF FLEETS	AGCY NO.	NO. OF FLEETS	AGCY NO.	NO. OF FLEETS
1		9		17		25	
2		10		18		26	
3		11		19		27	
4		12		20		28	
5		13		21		29	
6		14		22		30	
7		15		23		31	
8		16		24		32	

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet B

Trunked Frequency Sets

Frequency Set Name: _____

CH NO.	TRANS FREQ.	RECEIVE FREQ.	FCC CHAN TRANS. FREQ.
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			

CH NO.	TRANS FREQ.	RECEIVE FREQ.	FCC CHAN TRANS. FREQ.
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet C

Trunked Frequency Set Options

Trunked Set Name: _____

DEFAULT SITE ID	HIGH POWER	MAX CHANNELS ALLOWED
_____	ON OFF	_____

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet D

Conventional Frequency Sets

Sheet 1

Frequency Set Name: _____

CH NO	CHANNEL NAME	TRANSMIT FREQ.	RECEIVE FREQ.	TRANS. CG	STE
					On Off
					On Off
					On Off
					On Off
					On Off
					On Off
					On Off
					On Off

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet D

Conventional Frequency Sets

Sheet 2

Frequency Set Name: _____

CHAN. NO	RECEIVE CG	TRANSMIT LOCKOUT	CARRIER CONTROL TIMER	OSCILLATOR SHIFT	SCAN	PORT POWER
		On Off	On Off	Yes No	On Off	Low Hi
		On Off	On Off	Yes No	On Off	Low Hi
		On Off	On Off	Yes No	On Off	Low Hi
		On Off	On Off	Yes Nof	On Off	Low Hi
		On Off	On Off	Yes No	On Off	Low Hi
		On Off	On Off	Yes No	On Off	Low Hi
		On Off	On Off	Yes No	On Off	Low Hi
		On Off	On Off	Yes No	On Off	Low Hi

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet E

Conventional Frequency Set Options

Conventional Set Name: _____

HOME CHANNEL	WIDE SCAN CHANNEL
_____	_____

APPENDIX G
WORK SHEET FOLDER
MTD EDACS
Work Sheet F
Group Sets

Group Set Name:___________________________

GROUP	GROUP NAME	GROUP ID NUMBER	TYPE	SCAN	KNOB SELECT	ICALL
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off
			Nornal Encode Decode	On Off	On Off	On Off

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet G

Group Set Options

Group Set Name: _____

HOME GROUP: _____

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet H

Special Call Sets

Special Call Set Name: _____

CALL	NAME	TYPE	KNOB SELECT	NUMBER
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	
		TELE DTMF CALl ALL	ON OFF	

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet I

Keypad Limit Options

Special Call Set Name:_____

KEYPAD LIMIT	
Range	IF RANGE, THEN: ID's Allowed Lower Lmit: _____
None	ID's Allowed Upper Lmit: _____

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet J

Radio Personalities

Sheet 1

Personality Name: _____

SYSTEM NUMBER (1-48)	SYSTEM DISPLAY NAME	FREQ. SET	TYPE (T/C)	SITE ID (1-32)	UNIT NUMBER (1-16382)
			T C		
			T C		
			T C		
			T C		
			T C		
			T C		
			T C		
			T C		
			T C		
			T C		

APPENDIX G
WORK SHEET FOLDER
MTD EDACS
Work Sheet J
Radio Personalities
Sheet 2

Personality Name: _____

SYS NO. (1-48)	GROUP SET	SPECIAL CALL SET	EMERGENCY EMERG AUDIO (On/Off)	EMERGENCY DISPLAY (On/Off)	COL TIME
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	
			On Off	On Off	

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet K

Mobile Radio Options

		TIMEOUTS			
FAILSOFT DISPLAY	SUPER-VISORY	CARRIER CTRL	DISPLAY	INDIVID. CALL	SPECIAL CALL
Yes No	Yes No				

TIMEOUTS		ADDITIONAL OPTIONS			
DATA LOCKOUT	SCAN LOCKOUT	TEST SET	RAMP WRAP	AUTO LOGIN	HOOK-SWITCH
			On Off	On Off	Inverted Normal

	CALLER DISPLAY				
OFF HOOK FUNCTION	INDIVID. ID	GROUP ID	ALPHA MAPPING	HOME SYSTEM	MINIMUM VOLUME
Yes No	Yes No	Yes No	Yes No		

EMERGENCY/HOME BUTTON	
EMERG.	HOME
Enable Disable	Enable Disable

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet L

Menu Options

MENU 1	MENU 2	MENU 3
Special	Special	Special
Scan On/Off	Scan On/Off	Scan On/Off
Scan Add/Del	Scan Add/Del	Scan Add/Del
Ext Alarm	Ext Alarm	Ext Alarm
Status	Status	Status
Message	Message	Message
Disabled	Disabled	Disabled

MENU 4	MENU 5	MENU 6
Special	Special	Special
Scan On/Off	Scan On/Off	Scan On/Off
Scan Add/Del	Scan Add/Del	Scan Add/Del
Ext Alarm	Ext Alarm	Ext Alarm
Status	Status	Status
Message	Message	Message
Disabled	Disabled	Disabled

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet M

Initial Settings

POWER UP SYSTEM/ GROUP	SYSTEM	GROUP	POWER UP VOL. STATE	VOL.	POWER UP SCAN	SCAN STATE
Enabled Disabled			Enabled Disabled		Enabled Disabled	Enabled Disabled

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet N

Radio Parameters

CHANNEL SET EXPANSION	ALARM POWER UP STATE	EXTERNAL ALARM TYPE	RADIO OPERATION	TEST UNIT
On Off	Enabled Disabled	Call 1 Pulse 3 Pulse	Normal Test Unit Stand Alone CC Mon	

DATA ONLY RADIO	DATA HOST RADIO	QUEUED MESSAGE BEEP	CONVENTIONAL TRANSMIT BEEP
On Off	Enabled Disabled	Call 1 Pulse 3 Pulse	Normal Test Unit Stand Alone CC Mon

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet O

User Control Options

	AUDIO		
RADIO ALERT TONES	AUD. RANGE ALERT	PWR-UP TONE	TONE ON WORK. CHAN.
Singl e Continuous	Disable Enable	Disable Enable	Disable Enable

AUDIO			
BASE MOBILE OPERATION	RECEIVE CALL ALERT TONES	DISPLAY ICON LOCATION	DISPLAY DELIMITER
Enable Disable	Disable Enable	Left Right	

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet P

Scan Options

SCAN TRANSMIT SELECT	SCAN AFTER TRANSMIT	HANG DELAY	HOME GROUP SCAN
SELECTED AUTOSELECT	ACTIVE OFF		AUTO DECODED

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet Q

Desk Top Options

	REMOTE SYSTEM		REMOTE GROUP
1		1	
2		2	
3		3	
4		4	
5		5	
FIXED VOLUME:		Yes or No	

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet R

Status Keypad Definitions

	NAME	ID
1		
2		
3		
4		
5		
6		
7		
8		

	NAME	ID
9		
10		
11		
12		
13		
14		
15		
16		

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet S

Message Keypad Definitions

	NAME	ID
1		
2		
3		
4		
5		
6		
7		
8		

	NAME	ID
9		
10		
11		
12		
13		
14		
15		
16		

APPENDIX G

WORK SHEET FOLDER

MTD EDACS

Work Sheet T

Wide Area Scan

CC LOOP COUNT	PRIORITY WIDE SCAN TIMER
2 6 10 15	1.1 2.2 3.3 4.3

SYS	NAME				
		------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -
		------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -
		------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -	------ -- On -- -- Off - -- Pri - -- N/A -