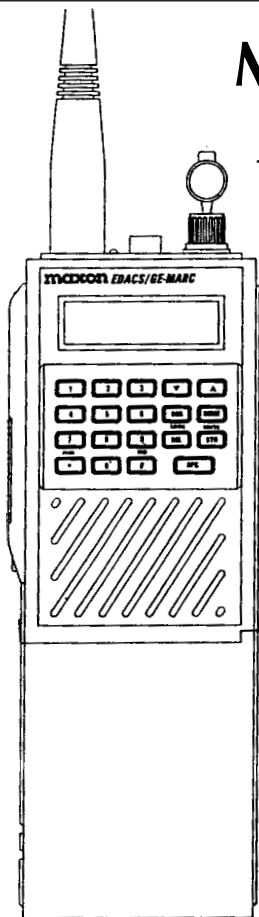

maxon®

Model EP-4800

EDACS®/GE-MARC®
TRUNKING PORTABLE



Operating
Instructions

TABLE OF CONTENTS

Safety Information	1
Battery Care	1
Recycling/Disposal of Batteries	2
Battery Charging	2
Extended Operations	3
FCC Licensing	4
Transceiver Service	4
Introduction	5
Radio Call-outs	6
Features	7
Quick Reference Guide - Controls	8
Quick Reference Guide - Indicators	10
System, Group and Channel Indicators	10
Alert Tones - Standard	11
Alert Tones - Trunked Operation	12
Error Messages	14
Keypad Lock	14
Keypad Mute	14
SCAT Operation	15

EDACS Operation

Receiving a Message	15
Sending a Message	16
Squelch Adjustment	17
Sending a Special Call	17
Sending a Manually Entered Call	18
Storing Individual/Interconnect Numbers	20
Recalling Individual/Interconnect Numbers	21
DTMF Overdial	22
Scan Operation	
Enable/Disable Scan	22
Add/Delete Scan List Groups	23
Home Key	23

TABLE OF CONTENTS, Continued

GE-MARC Operation

Receiving a Message	24
Sending a Message	25
Sending a Special Call	25
Sending a Pre-Programmed Special (In Conference Call)	27
Sending a Manually Entered Call	28
Storing Individual/Interconnect Numbers	30
Recalling Individual/Interconnect Numbers	31
Wide Area System Scan	33
Direct Mode Operation	
Receiving A Message	34
Sending A Message	34
Sending A Manually Entered Interconnect Call	35
Scan Operation	
Enable/Disable	35
Add/Delete Channels	36

Conventional Operation

Receiving a Message	37
Sending a Message	37
Squelch Adjustment	38
Sending a Manually Entered Interconnect Call	38
Scan Operation	
Enable/Disable	39
Add/Delete Channels	39
Warranty Statement	Inside Back Cover

SAFETY INFORMATION

The Federal Communications Commission (FCC), with its action in General Docket 79-144, dated March 13, 1985, has adopted a safety standard for the human exposure to radio frequency (RF) electromagnetic energy emitted by FCC regulated equipment. Proper operation of this radio will result in user exposure far below the Occupational Safety and Health Act and Federal Communications Commission limits.

WARNING - DO NOT hold the radio in such a manner that the antenna is close to, or touching, exposed parts of the body - especially the eyes or face - while the radio is transmitting.

WARNING - DO NOT allow children to operate transmitter-equipped radio equipment.

CAUTION - DO NOT operate the radio near unshielded electrical blasting caps or in an explosive atmosphere, unless it is a type specifically designed and qualified for such use.

CAUTION - DO NOT operate the radio unless the antenna connector is secure and any open connectors are properly terminated.

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

BATTERY CARE



WARNING



- DO NOT** dispose of the battery pack in fire - it may explode, causing injury or death.
- DO NOT** replace the battery in hazardous atmosphere locations.
- DO NOT** carry a battery loose in your pocket or purse.
- DO NOT** attempt to repair battery.

RECYCLING/DISPOSAL OF BATTERIES

The U.S. Environmental Protection Agency (EPA) classifies used Ni-Cd batteries as hazardous waste, unless certain exemptions apply.

The battery should be recycled at the end of its useful life. Under various state or local laws, such batteries must be recycled or disposed of properly and cannot be dumped in landfills or incinerators.

Maxon America, Inc. fully endorses and encourages the recycling of Ni-Cd batteries. A national program to collect and recycle used Ni-Cd batteries is being implemented by the Rechargeable Battery Recycling Corporation (RBRC™). This program is being funded through the use of license fees paid by the battery and product manufacturers to place the RBRC™ Seal on the batteries.

The following is a list of facilities where the batteries can be shipped to be recycled. Contact these facilities for proper packaging and shipping guidelines.

INMETCO

245 Portersville Road
Ellwood City, PA 16117
TEL: (412) 758-2800
FAX: (412) 758-2842

Kinsbursky Brothers Inc.

1314 N. Lemon Street
Anaheim, CA 92801
TEL: (714) 738-8516
FAX: (714) 441-0857
(800) 548-8797

BATTERY CHARGING

Your radio comes supplied with a 7.5 volt 1100 mAh Ni-Cd battery pack, which can be recharged from 500 to 1000 times before it requires replacement. The actual number of charge/recharge cycles vary depending upon usage. We recommend that the battery be charged 14 to 16 hours on the first charge cycle, then according to the charger model instructions thereafter.

To remove the battery pack, push up on the battery latch and slide the battery pack to the right. To replace the battery, align the battery on the track and slide to the left until a click is heard, indicating the battery is correctly installed.

If the battery is to be charged on the radio, ensure that the power

BATTERY CHARGING, Continued

switch on the radio is in the off position before charging. Failing to turn the power switch to off during the charge cycle will result in a less-than-full charge condition, which will noticeably reduce the radio operating time between charges!

Normal battery operation time is 8 hours. This may vary depending upon how much the receiver audio is present and how much you transmit. The actual time may vary from day to day depending upon operational requirements.

For best performance:

- Charge battery to full capacity, 14 hours at the standard C/10 rate (capacity x .10). For "rapid" chargers, allow additional time (2-3 hours) for "topping off" the charge after it switches from "fast" to "slow" mode.
- Use the battery soon and use as much of the battery capacity as possible or practical. A battery that is charged and discharged completely will maintain the longest running time capacity. Also, several charge/discharge cycles are recommended to bring a new battery up to its rated capacity.
- Store and charge the batteries at room temperature (65° to 75° F). Batteries that have been stored for over a month should be recharged before being put into service (due to chemical self-discharge which occurs at a rate of approximately 1% per day). Do not charge cold batteries (40° F or below).
- Reduced capacity or "memory effect" may result from repeated identical shallow discharge/full recharge cycles. If such a condition is suspected, run the battery until the radio loses all power, then fully recharge and discharge again. Repeat this cycle 3-4 times.

EXTENDED OPERATIONS

When operating in "fringe areas" at some distance from the System, the other party may not receive your transmission clearly. Also you may notice that the background noise will increase on received signals. Moving to higher ground or moving closer the System will help alleviate these problems. If moving closer to the System is not

EXTENDED OPERATIONS, Continued

practical, communication may be improved by moving away from shielding structures. If you are in a building interior, move closer to a window (preferably one generally in the direction of the System). At 800 MHz, the wave length is very short - sometimes moving a few inches to a few feet can make significant signal strength changes. Finding the best location can also be done while listening to the background noise when moving about; attempt to find a spot where the background noise is reduced to a minimum or eliminated entirely.

This may make the difference from not being heard, to being heard loud and clear when operating in the fringe areas of your System coverage. The fringe distance will vary greatly from plains areas, hilly terrain and mountain top sites.

FCC LICENSING

This unit may or may not require a specific FCC license to operate. The FCC requires all transmitters in the conventional and some trunked Systems to be licensed by the Federal Communications Commission. Some trunked operations now are exempt from individual licensing requirements but must be operated in a licensed System.

Consult your Dealer regarding specific licensing information, or contact the Federal Communications Commission.

For more information regarding Form 571 (FCC License Application) call 717-337-1212 or contact the FCC District Office near you.

TRANSCEIVER SERVICE

There are no user serviceable components inside the radio. Altering the internal components or adjustments may result in illegal emissions, including off-frequency operation, or damage to the radio. Should an UNLOCK condition be shown in the LCD window, or the LCD fail to display information, or all icons and display segments be shown, turn the On/Off-Volume control OFF then ON to reset the microprocessor. Ensure that the battery is fully charged and check that the antenna is securely tightened. If the unit still fails to operate properly, refer to an Authorized Service Center for servicing.

INTRODUCTION

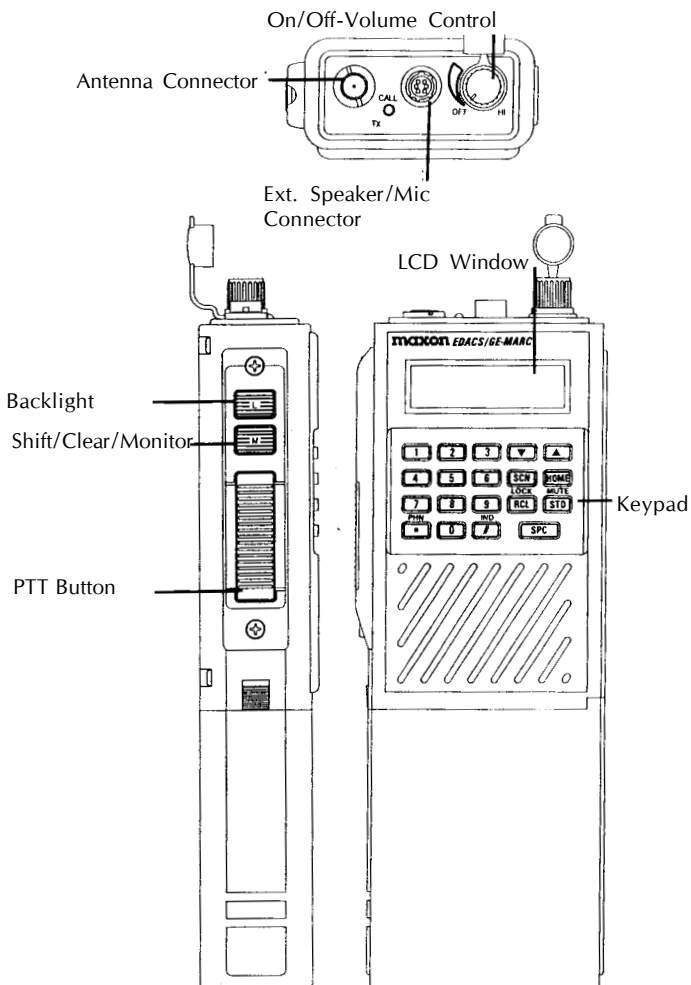
The Maxon EP-4800 Series EDACS Trunking Portable Radio provides reliable trunked communication in the 800 MHz band. Advanced dual format technology allows the radio to operate within the EDACS Trunked System and the GE-MARC Trunked System. The radio will also operate in a Conventional System.

The unit is lightweight and easy to carry. A backlit alphanumeric display provides clear visibility for low light or night-time operation.

This manual provides a separate section of operating instructions for each of the 3 systems (EDACS, GE-MARC, and Conventional). The Description section (which follows) and the Battery Information are applicable to all users.

NOTE: This radio allows the operator to switch between an EDACS, a GE-MARC and a Conventional system. Special attention should be given to the System selected and the operating characteristics of the radio while working within that System.

RADIO CALL-OUTS



FEATURES

- Up to 16 Systems selectable with up to 16 Groups per System (EDACS)
- Up to 9 Areas x 9 Groups (GE-MARC)
- System scan
- System lockout when scanning
- Group Scan automatically or manually
- First Available System Scan when out of range of Systems
- 7-character alphanumeric LCD display with backlight for System and Group identification and other status information
- Operation in both Trunked and Conventional modes
- Repeater talkaround in Conventional and Trunked modes
- Standard keypad for placing telephone interconnect calls
- Call indicator
- User-programmable storage of up to 10 telephone numbers and up to 10 individual numbers of up to 14 digits in length
- Automatic System ringback if System is busy
- Transmit inhibit with busy tone
- Clear-to-talk tone signals when speaking can begin

NOTE: System setup determines the specific operation of some of the above features. Refer to the descriptions in this manual for more information.

QUICK REFERENCE GUIDE - CONTROLS

On/Off-Volume



OFF HI

Clockwise rotation provides power (with a mechanical click sound). Continued rotation increases volume level. Counter-clockwise rotation decreases volume. Full counter-clockwise rotation removes power (a click sound will be heard at full detent). The radio can be programmed to beep once after power is applied, indicating it is ready for use.

PTT (Push To Talk)



Pressing the PTT button (located on the side of the radio) will key the radio's transmitter and perform the necessary steps to acquire a communication channel.

Shift/Clear/Monitor



All alternate key functions are accessed by pressing this button and then pressing the desired function key.

Trunked - Pressing this button twice will enable the CLEAR function (used to exit the Special Call mode and return to the normal System/Group display).

Conventional - Pressing and holding this button twice (double click) will enable the MONITORING mode (checking the channel for activity by unscquelching the receiver). All transmissions will be heard, even if Channel Guard protected.

Backlight



Pressing this button illuminates the LCD for a pre-programmed time period.

QUICK REFERENCE GUIDE - CONTROLS, Continued

System/Group
Select



The ▲ and ▼ buttons are used to select Group/Channel numbers. Pressing the radio's Shift/Clear/Monitor button and then the up or down arrows will select the System. These up/down arrow buttons are also used in the Special Call mode (trunked systems only).

HOME

Pressing and holding this key for a programmed duration selects a desired Group and/or System.

SPC (Special)

Pressing this key will put the radio in the Special Call mode. The radio will be able to make individual and interconnect calls (trunked systems only).

SCN
(Scan Add/Delete)

This key is used to enable the Scan mode and add to or delete Groups/Channels to the scan list.

STO (Store)

Pressing this key stores individual call numbers and interconnect calls (trunked systems only).

MUTE
(Duplex function of
the STO key)

Pressing the STO key in combination with the Shift/Clear/Monitor button will mute/unmute the radio.

RCL (Recall)

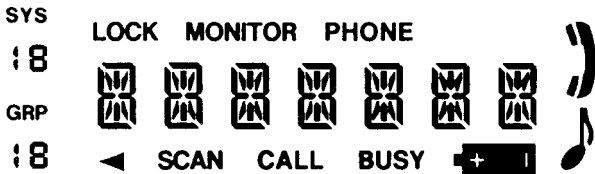
Pressing this key will recall manually entered individual and interconnect calls in EDACS and GE-MARC systems.

LOCK
(Duplex function of
the RCL key)

Pressing the RCL key in combination with the Shift/Clear/Monitor button will lock the keypad. All buttons and keys will be locked except PTT, HOME, Shift/Clear/Monitor, and LOCK.

QUICK REFERENCE GUIDE - INDICATORS

The EP-4800 radio has a 7-character alphanumeric display that identifies the selected System/Group, operating modes or error conditions. The display uses 12 status indicators, described on the following pages.



The LCD backlight can be programmed to turn on anytime the "L" (backlight button) is pressed or any button or key is pressed. It will remain on for a programmable length of time, and is programmed on a per Group/Channel basis. You may also choose to have the backlight programmed to remain off at all times or to remain on (or off) when the PTT button is pressed.

SYSTEM, GROUP AND CHANNEL INDICATORS

SYS (System) This display identifies the number of the current EDACS, GE-MARC or Conventional System selected.

GRP (Group) This display identifies the number of the current Group in an EDACS or GE-MARC System. The indicator disappears when radio operates in a Conventional System, but the channel number will show on display.




STATUS INDICATORS

BUSY This display indicates the radio has received a call or a conventional channel is in use. The indicator is also shown when transmitting on a trunked channel.



This icon is shown when radio battery power is low and needs charging.

QUICK REFERENCE GUIDE - INDICATORS, Continued

SCAN	This display appears when Scan is activated.
LOCK	This display appears when the keypad lock function is enabled.
	This icon indicates that a trunked Group or Conventional channel is scan enabled.
PHONE	In EDACS or GE-MARC modes, a display and handset icon will be shown when the radio is placed in the Special Call mode.
	
CALL	This display appears when the radio receives an individual call in EDACS or GE-MARC modes.
	This icon indicates that the key press tones are activated.
MONITOR	This display appears with the monitor mode has been enabled in a Conventional System.
NC (No Connect)	This display appears when the radio has no connection within the service area.

ALERT TONES - STANDARD

The radio generates a number of tones to indicate radio status and condition. Both standard tones and those generated during trunked operation are described on the following pages.

Power-Up	If programmed, a tone will sound upon power up, after the radio passes the self test.
Low Battery	A low pitched tone will sound every 130 seconds when the battery is low and needs charging.

ALERT TONES - STANDARD, Continued

Carrier Control Timer The Carrier Control Timer (CTT) alert is a pulsed tone signal that sounds whenever the PTT button is continuously pressed for a pre-programmed length of time. After nine (9) seconds of signalling, the transmitter shuts down and communication is interrupted. To maintain communication, release and re-key the PTT switch. This resets the timer and turns the transmitter back on. The CCT is a built-in precaution against inadvertent use of the system.

ALERT TONES - TRUNKED OPERATION

Call Originate **EDACS** - If programmed, a short tone is sounded whenever the PTT button is keyed and the radio has acquired a channel. This tone indicates the user may proceed to talk.

GE-MARC - If programmed, a three-tone alert is sounded whenever the PTT button is keyed and the radio has acquired a channel. These tones indicate the user may proceed to talk.

Call Received If programmed, a single alert tone sounds when a group call is received. A two-tone alert (one high followed by one low tone) is sounded for an individual call.

Call Queued **EDACS** - If one short, high pitched tone sounds after the transmitter is keyed, this indicates that the System has placed the request in a queue. The tone sounds at both the transmitting unit and the receiving unit(s), indicating to the user on the receiving end that they will receive a call shortly. If the PTT is unkeyed while in the queue, the radio will autokey (automatically key the PTT) when a channel is available.

ALERT TONES - TRUNKED OPERATION, Continued

- Autokey** **EDACS** - When the PTT is keyed to place a call on the System, but the PTT is released before getting to the channel (e.g. a queued call), the radio will automatically key on the channel when it gets the assignment. The radio generates a long beep and holds the transmitter keyed for two seconds. Pressing the PTT button keeps the channel and sends the message before this two second time-out has expired.
- System Busy** **EDACS** - If you key the PTT button and hear three short, medium-pitched tones, they indicate that the receiving party is already engaged in another call or the system is busy and its queue is full. You must rekey later to access the System.
- GE-MARC** - If you key the PTT button and hear a low frequency tone for 1 second, this indicates all channels are busy.
- Call Denied** **EDACS** - A single low-pitched beep will sound when the PTT button is keyed and the request is denied by the System. This happens if the unit is an invalid user or is requesting an unavailable service.
- Out of Range/System** **EDACS** - A single pitched tone will sound immediately after the PTT button is keyed, indicating the radio is out of range of the repeater. The radio tries to place the call for a short period (3 seconds) after the initial attempt. The radio generates a second low pitched tone when it gives up trying to place the call. The system is off the air or the radio needs servicing when the radio is within calling range, and these tones are heard.

ALERT TONES - TRUNKED OPERATION, Continued

Out of Range/System, **GE-MARC** - Five beeps will sound shortly after the PTT button is keyed if the radio is out of range of the repeater or inoperative. If the "call retry" is active, the radio will try the channel at twenty (20) second intervals for five minutes.

ERROR MESSAGES

SYN LOC
(Synthesizer Lock) If at anytime the synthesizer is unable to load and lock on the channel properly, this display will be shown. If a SYN LOC message is displayed on all Systems, the radio has failed or has not been programmed properly. The radio buttons and keys will still operate.

PRS ERR
(Personality Error) If the personality has not been programmed into the radio, this display will appear.

KEYPAD LOCK

The keypad can be locked at any time to prevent any undesired key presses. To lock the keypad when it is in the unlocked state, press the RCL key (LOCK) in combination with the Shift/Clear/Monitor button. All buttons and keys except the PTT, HOME, SHIFT/CLR/MONITOR and LOCK will now be inhibited. To unlock the keypad when it is in the locked state, press the RCL key (combined with the Shift/Clear/Monitor button) and release.

KEYPAD MUTE

The keypad can be muted at anytime. To mute the keypad when it is in the unmute state, press the STO key (MUTE) in combination with the Shift/Clear/Monitor button. All buttons will be muted. To unmute the keypad, press the STO key (combined with the Shift/Clear/Monitor button) and release. The keypad is now unmuted.

SCAT OPERATION

A SCAT (Single Channel Autonomous Trunking) System operates with the same set of features as a standard EDACS system. The only user change relates to the BUSY indicator. Since only one channel, operating as both control and working channel, exists in a SCAT System, the BUSY indicator will be on when the SCAT channel is in the working channel mode. When the transmission on the channel is completed, the indicator turns off and indicates the return of SCAT control channel signaling.

~ EDACS Operation ~

RECEIVING A MESSAGE

1. Turn the radio on by rotating the On/Off-Volume control clockwise from the off (detent) position. After the radio has passed the power-up self test, an optional tone will sound and the current System and Group will be displayed. If the radio fails the self test, an error message will be displayed or the display will be blank. See Error Messages section.
2. Press the M (Shift/Clr/Monitor) button and then use the up/down arrow buttons to select an **EDACS** System. The SYS (System) display will indicate the current System selected. Press the M (Shift/Clr/Monitor) button again to exit System select.
3. Use the up/down arrow buttons to select the desired Group. The GRP (Group) display will indicate the current Group selected. The radio is now ready to receive messages.
4. Using the Volume control knob, adjust the volume as necessary.

INDIVIDUAL CALL - If an individual call (a call directed only to your radio) is received, the radio unscquelches on the assigned channel. The BUSY indicator will display. If programmed on, the individual call received tones (one high followed by one low) will sound and the originator's ID or just "ID" (depending upon programming) is displayed for a short time. To answer the call, simply press PTT and begin talking if the caller's ID is still shown. If caller's ID is no longer shown, press the SPC key to return the caller's ID to the display, then press PTT and begin talking.

EDACS - RECEIVING A MESSAGE, Continued

GROUP CALL - When the radio receives a Group call, it unsquelches on the assigned channel and lights the BUSY indicator. If programmed on, the Group call received tone (single tone) will sound. The radio can also be programmed to display the Group name originator's ID.

INTERCONNECT CALL - If an interconnect call (a telephone call directed to your radio) is received, the radio unsquelches on the assigned channel. The radio displays PHN CAL and the CALL and BUSY indicators appear. If programmed on, the interconnect call received tones (one high followed by one low) will sound. PHONE and the handset icon will be displayed.

NOTE: The optional call received tones are programmed OFF by default.

SENDING A MESSAGE

1. Turn the radio on, select and set the desired System and Group as described under previous section, EDACS - Receiving A Message.
2. Observe the display - the BUSY and the NC (No Connect) indicators should **not** be present, confirming that no one is transmitting on the selected Group, and that the radio is in a service area.
3. Press and hold the PTT button. The radio will perform the signaling required to obtain a communication channel. If the signaling is unsuccessful, the radio will sound the appropriate alert tone(s). Refer to Alert Tones - Trunking Operation section.
4. When the channel has been acquired, the red TX (transmit) LED (on radio's top panel) and the BUSY indicator will illuminate. If programmed, the call originate tone (single short tone) will sound.
5. Hold the radio about 3 inches from your mouth and speak in a normal tone into the microphone.
6. Release the PTT button when your transmission is complete and listen for a reply.

EDACS - SQUELCH ADJUSTMENT

In normal operation, the squelch is automatically set by the radio and does not need adjusting. If it becomes necessary to adjust the squelch, use the following procedure:

Press and hold the M (Shift/Clr/Monitor) button. Use the up/down arrow buttons to adjust the squelch - up arrow opens the squelch; down arrow closes the squelch.

NOTE: The radio must be on a Conventional System or an EDACS working Channel (i.e. receiving a voice call) to adjust the squelch. It is recommended that you adjust squelch from a Conventional System.

SENDING A SPECIAL CALL

1. Press the SPC (special) key to put the radio into Special Call mode and provide access to an alphanumeric special call list. Each selection from the list is pre-programmed with either an individual number or an interconnect number. If programmed, the special call alphanumeric identifier will be displayed. The PHONE and handset icon will be displayed while in the Special Call mode.
2. Press the up/down arrow keys to move through the special call list.

NOTE: To display the last seven digits of the individual interconnect number currently selected, press and hold the M (Shift/Clr/Monitor) button and then press the SPC (special) key.

INDIVIDUAL CALL - Once the desired individual special call number is displayed, press and hold the PTT to initiate the call. The radio will perform the required signaling to obtain a working channel.

When the signaling is successfully completed, the BUSY display will appear and the call originate tone sounds. Speak directly into the microphone. Release the PTT button as soon as you stop talking and wait for a reply.

When the call is complete, double click the M (Shift/Clr/Monitor)

EDACS - SENDING A SPECIAL CALL, Continued

button to exit the Special Call mode and return to the normal System/Group display.

INTERCONNECT - Once the desired interconnect special number is displayed, press and hold the PTT to initiate the call. The radio will perform the required signaling to obtain a working channel.

When the signaling is successfully completed, the BUSY display will appear, and the proper DTMF tones will be sent and heard at the speaker. When someone answers, press the PTT button and speak directly into the microphone. Release the PTT button as soon as you stop talking. Messages cannot be received when the PTT button is pressed. If the signaling is unsuccessful, the radio will remain in the Special Call mode and sound the appropriate alert tone(s).

When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

SENDING A MANUALLY ENTERED CALL

INDIVIDUAL CALL

1. Press the SPC (special) key to put the radio into Special Call mode. The display will identify the last accessed Special Call name/number from the pre-programmed Special Call list. PHONE and the handset icon will be displayed while in the Special Call mode.
2. Enter the ID number of the radio to be called. The last digit entered will always be displayed in the far right hand side of the display. Any previously entered digits will scroll to the left. Only the last seven characters will be visible in the display - the leading character will scroll off the display with each new entry. To backspace and clear a digit, press the SCN (scan) key.

NOTE: To recall the last individual number entered manually from the keypad, press the RCL (recall) key.

3. Press and hold the PTT button to initiate the call. The radio will perform the required signaling to obtain a working channel.

EDACS - INDIVIDUAL CALL, Continued

4. When the signaling is successfully completed, the BUSY indicator will appear, and the call originate tone sounds. Speak directly into the microphone. Release the PTT button as soon as you stop talking and wait for a reply. Messages cannot be received when the PTT button is pressed. If the signaling is unsuccessful, the radio will remain in the Special Call mode and sound the appropriate alert tone(s).
5. When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

INTERCONNECT CALL

1. Press the SPC (special) key to put the radio into Special Call mode. The radio will display the last accessed call number from the pre-programmed Special Call list. The PHONE and handset icon will be displayed while in the Special Call mode.
2. Enter the telephone number to be called. The last digit entered will always be displayed in the far right hand side of the display. Any previously entered digits will scroll left. Only the last seven characters will be visible in the display - the leading character will scroll off the display with each new entry. To backspace and clear a digit, press the SCN (scan) key.

NOTE: To recall the last interconnect number entered manually from the keypad, press the RCL (recall) key.

3. Complete the telephone entry by pressing the * key, indicating that the digits are for an interconnect call. The * will not be displayed, but a tone will sound.
4. Press and release the PTT button to initiate the call. The radio will perform the required signaling to obtain a working channel. When the signaling is successfully completed, the BUSY indicator will appear and the proper DTMF tones will be sent and heard at the speaker. If the interconnect signaling is unsuccessful, the radio will remain in the Special Call Mode and sound the appropriate alert tone(s).

EDACS - INTERCONNECT CALL, Continued

5. When someone answers, press the PTT button and speak directly into the microphone. Release the PTT button as soon as you stop talking. Messages cannot be received when the PTT bar is pressed.
6. When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

STORING INDIVIDUAL/INTERCONNECT NUMBERS

NOTE: Use the # key for storing manual individual calls; the * key for storing manual interconnect calls as follows:

1. Press the SPC (special) key to put the radio into Special Call mode. The display will identify the last accessed call number from the pre-programmed Special Call list. PHONE and the handset icon will be displayed while in the Special Call mode.
2. Enter the ID number or telephone number of the radio to be stored. The last digit entered will always be displayed in the far right hand side of the display. Any previously entered digits will scroll left. Only the last seven characters will be visible in the display - the leading character will scroll off the display with each new entry. To backspace and clear a digit, press the SCN (scan) key.
3. Complete the entry by pressing the **# key for individual numbers** and the *** key for telephone interconnect numbers**. The # key indicates the digits entered are for an individual call and * key indicates the digits are for an interconnect call. They will not be displayed but a tone will sound.
4. Enter a digit between 0 and 9 to select a storage location. The storage location will not be displayed, but a tone will sound. There are 10 storage locations for individual numbers and 10 storage locations for interconnect numbers. Press the STO (store) key to complete the storage procedure.
5. Double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

RECALLING INDIVIDUAL/INTERCONNECT NUMBERS

NOTE: Use the # key for recalling and placing an individual call; the * key for recalling and placing an interconnect call as follows:

1. Press the # key to recall the individual call list or the * key to recall the interconnect call list. The screen will blank and a tone will sound.
2. Enter the desired storage location number (0-9).
3. Press the RCL (recall) key to put the radio into the Special Call mode. If the number is from the individual call list, the ID number will be displayed. If the number is from the interconnect call list, the last seven digits of the telephone number will be displayed. If the memory location is blank, the radio will sound a low pitched tone after the RCL (recall) key is pressed.

INDIVIDUAL - Once the desired individual call number is displayed, press and hold the PTT button to initiate the call. The radio will perform the required signaling to obtain a working channel.

When the signaling is successfully completed the BUSY indicator will appear, the red TX (transmit) LED will illuminate and the Call Originate tone will sound. Speak directly into the microphone. Release the PTT button as soon as you stop talking and wait for a reply. If the signaling is unsuccessful, the radio will remain in the Special Call mode and sound the appropriate alert tone(s).

When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

INTERCONNECT - Once the desired interconnect special call number is displayed, press and release the PTT button to initiate the call. The radio will perform the required signaling to obtain a working channel.

When the signaling is successfully completed, the BUSY indicator will appear, and the proper DTMF tones will be sent and heard at the speaker. When someone answers, press the PTT button and speak directly into the microphone. Release the PTT as soon as you stop

EDACS - RECALLING NUMBERS, Continued

talking. Messages cannot be received when the PTT button is pressed. If the signaling is unsuccessful, the radio will remain in the Special Call mode and sound the appropriate alert tone(s).

When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

EDACS SPECIAL CALL KEYPRESS REFERENCE

(INDIVIDUAL CALLS)

To Place: SPC key – DIGITS – PTT

To Store: SPC key – DIGITS – # key – 0-9 – STO key

To Recall and Place: # key – 0-9 – RCL key – PTT

(INTERCONNECT CALLS)

To Place: SPC key – DIGITS – * key – PTT

To Store: SPC key – DIGITS – * key – 0-9 – STO key

To Recall and Place: * key – 0-9 – RCL key – PTT

DTMF OVERDIAL

After the radio has acquired a working channel, if programmed, to make a message trunked call, DTMF tones can be sent by pressing and holding the PTT button and manually enter the desired numbers using the keypad.

In the same manner, stored interconnect numbers (tones) may be sent by recalling the desired storage location as described previously in the Recalling Manually Stored Individual/Interconnect Numbers section. Press the PTT button to send the tones.

SCAN OPERATION

ENABLE/DISABLE SCAN

To enable Group scanning, press the SCN (scan) key. The SCAN identifier will display to indicate scan is active. To disable scan, press the SCN (scan) key. The SCAN identifier will disappear to confirm scan function is off.

EDACS - SCAN OPERATION, Continued

ADD/DELETE SCAN LIST GROUPS

Groups can be added or deleted from the scan list as necessary.

Adding Groups:

1. Select the desired Group to be added. If the current Group is already included in the scan list, the left arrow icon will display.
2. To add the Group to the scan list, press the M (Shift/Clr/Monitor) button and then the SCN (scan) key. The left arrow icon will display, and the group will be added to the scan list.

NOTE: Scan must be disabled to add a Group to the scan list.

Deleting Groups:

1. Select the desired Group to be deleted. If the current Group is already included in the scan list, the left arrow icon will display.
2. To delete the Group from the scan list, press the M (Shift/Clr/Monitor) button and then the SCN (scan) key. The left arrow icon will disappear, and the group will be removed from the scan list.

HOME KEY

The radio can be programmed to automatically switch to a home System and/or Group by pressing and holding the HOME key for the programmed duration.

If the HOME key is enabled, the radio will switch to the programmed home System and/or Group. When HOME is disabled, it is not active.

~ End of EDACS Operation Section ~

~ GE-MARC Operation ~

RECEIVING A MESSAGE

1. Turn the radio on by rotating the On/Off-Volume control clockwise from the off (detent) position. After the radio has passed the power-up self test, an optional tone will sound and the current System and Channel will be displayed. If the unit fails the self test, an error message will be displayed, or the display will be blank. See Error Messages section.
2. Press the M (Shift/Clr/Monitor) button and then use the up/down arrow buttons to select a GE-MARC system. The SYS (System) display will indicate the current System selected.
3. Use the up/down arrow buttons to select the desired Group. The GRP (Group) display will indicate the current Group selected. The radio is now ready to receive messages.
4. Using the Volume control knob, adjust the volume as necessary.

INDIVIDUAL CALL - If an individual call (a call directed only to your radio) is received, the radio unsquelches on the assigned channel. The BUSY indicator and *INDV* (individual call) will display, and the individual call received tones (one high followed by one low tone) will sound unless programmed off.

GROUP CALL - When the radio receives a group call, it unsquelches on the assigned channel and displays the BUSY indicator. The Group call received tone (single tone) will sound unless programmed off.

INTERCONNECT CALL - If an interconnect call (a telephone call directed to your radio) is received, the radio unsquelches on the assigned channel and the BUSY indicator appears, along with PHN CAL on the display. If the received tone set was the selected Group tone set, then the radio will operate as it does when it receives a Group call from another radio. If the tone set was the selected System's individual call tone set, the radio will operate as if it had received an individual call from another radio.

SENDING A MESSAGE

1. Turn the radio on, select and set the desired System and Group as described under previous section, GE-MARC - Receiving A Message.
2. Observe the display - the BUSY should **not** be present, confirming that no one is transmitting on the selected Group.
3. Press and release the PTT bar. The display will show "WAIT" while the radio performs the required signaling to obtain a communication channel. If the signaling is unsuccessful, the radio is out of range or inoperative, "NO SERV" will appear on the display, and a sequence of five beeps will be heard at the speaker. Any subsequent attempt to initiate a call within the next 20 seconds will be ignored.

If all available repeaters are busy when the call is attempted, one long beep is heard, and BUSY is displayed. The call will not be retried automatically.

NOTE: If the "call retry" option is active, the radio will display "RETRYNG" and try the channel at twenty (20) second intervals for five minutes before returning to the normal System/Group display.

4. When the channel has been acquired, the BUSY indicator will appear and, if programmed, the call originate tones (a three-tone alert) will be heard from the speaker.
5. Press the PTT button. The red TX (transmit) LED will illuminate. Hold the radio about three inches from your mouth and speak in a normal tone into the microphone.
6. Release the PTT button when the transmission is complete and listen for a reply.

SENDING A SPECIAL CALL

1. Press the SPC (special) key to put the radio into Special Call mode which also provides access to a pre-programmed special call list. Each selection from the list is programmed with either an individual

GE-MARC - SENDING A SPECIAL CALL, Continued

number or an interconnect number. If programmed, the special call list is capable of displaying an alphanumeric field. The PHONE and handset icon will be displayed while in the Special Call mode. If no special calls are programmed, the radio displays "SPC CAL".

2. Press the up/down arrow keys to move through the special call list.

NOTE: To display the last seven digits of the individual or interconnect number currently selected, press and hold the M (Shift/Clr/Monitor) button and then press the SPC (special) key.

INDIVIDUAL CALL - Once the desired individual special number is displayed, press and release the PTT button to initiate the call. The display will show "WAIT" while the radio performs the necessary signaling required to obtain a working channel.

When the signaling is successfully completed, the BUSY display will appear and the call originate tones (a three-tone alert) will be heard at the speaker. Press the PTT bar and speak directly into the microphone. Release the PTT bar as soon as you stop talking and wait for a reply.

When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the special call mode and return to the normal System/Group display.

INTERCONNECT CALL - Once the desired interconnect special call number is displayed, press and release the PTT to initiate the call. The display will show "WAIT" while the radio performs the necessary signaling required to obtain a working channel.

When the signaling is successfully completed, the BUSY display will appear and the proper DTMF tones will be sent and heard at the speaker. When someone answers, press the PTT bar and speak directly into the microphone. Release the PTT bar as soon as you stop talking and wait for a reply.

If the signaling is unsuccessful, the radio is out of range or inoperative, "NO SERV" will appear on the display, and a sequence of five beeps will be heard at the speaker. Any subsequent attempt to initiate a call

GE-MARC - SENDING A SPECIAL CALL, Continued

within the next 20 seconds will be ignored.

If all available repeaters are busy when the call is attempted, one long beep is heard, and BUSY is displayed. The call will not be retried automatically.

NOTE: If the "call retry" option is active, the radio will display "RETRYNG" and try the channel at twenty (20) second intervals for five minutes before returning to the normal System/Group display.

When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the special call mode and return to the normal System/Group display.

The radio is capable of the following from the Special Call mode:

- Storing and/or recalling up to 10 individual and 10 interconnect numbers in 2 separate storage locations. These numbers are manually entered from the keypad.
- Initiating individual and interconnect calls that are manually entered from the keypad.

Each of the features are discussed in detail in the following sections.

SENDING A PRE-PROGRAMMED SPECIAL CALL (IN CONFERENCE CALL)

Pre-programmed special calls can also be initiated using the selected group tone set. To initiate a special call in Conference Call mode, press key 7 to put the radio into Conference Call mode. If programmed, the special call list is capable of displaying an alphanumeric field. If no special calls are programmed, the radio displays "CNF CAL".

The programmed call may now be sent following the procedure described in SENDING A SPECIAL CALL section.

SENDING A MANUALLY ENTERED INDIVIDUAL CALL

INDIVIDUAL CALL

1. Press the SPC (special) key to put the radio into Special Call mode or key 7 to put the radio into Conference Call mode. The radio displays the last accessed special call number from the pre-programmed special call selection. PHONE and the handset icon will be displayed. If no special calls are programmed, the radio displays "SPC CAL".
2. Enter the tone set of the radio to be called. The last digit entered will always be displayed in the far right hand side of the display. Any previously entered digits will scroll to the left. Only the last seven digits will be visible in the display - the leading digit will scroll off the display with each new entry. To backspace and clear a digit, press the SCN (scan) key.

NOTE: To recall the last individual number entered manually from the keypad, press the RCL (recall) key.

3. Press and release the PTT bar to initiate the call. The display will show "WAIT" while the radio performs the signaling required to obtain a working channel.
4. When the signaling is successfully completed, the BUSY display will appear and the proper DTMF tones will be sent and heard at the speaker. When someone answers, press the PTT bar and speak directly into the microphone. Release the PTT bar as soon as you stop talking and wait for a reply.

If the signaling is unsuccessful, the radio is out of range or inoperative, "NO SERV" will appear on the display, and a sequence of five beeps will be heard at the speaker. Any subsequent attempt to initiate a call within the next 20 seconds will be ignored. The radio can be cleared from this mode by double clicking the M (Shift/Clr/Monitor) button.

If all available channels are busy when the call is attempted, a one second beep is heard, and BUSY is displayed. The call will not be retried automatically.

NOTE: If the "call retry" option is active, the radio will display

MANUALLY ENTERED INDIVIDUAL CALL, Continued

"RETRYNG" and try the channel at twenty second intervals for five minutes before returning to the normal System/Group display.

5. When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call or Conference Call mode(s) and return to the normal System/Group display.

INTERCONNECT CALL

1. Press the SPC (special) key to put the radio into Special Call mode, or key 7 to put the radio into Conference Call mode. The radio displays the last accessed special call number from the pre-programmed special call selection. PHONE and the handset icon will show on the display. If no special calls are programmed, the radio displays "SPC CAL".
2. Enter the telephone number to be called. The last digit entered will always be displayed in the far right hand side of the display. Any previously entered digits will scroll to the left. Only the last seven digits will be visible in the display - the leading digit will scroll off the display with each new entry. To backspace and clear a digit, press the SCN (scan) key.

NOTE: To recall the last interconnect number entered manually from the keypad, press the RCL (recall) key.

3. Complete the telephone entry by pressing the * key. The * key indicates the digits are for an interconnect call. This will not be displayed but a tone will sound.
4. Press and release the PTT bar to initiate the call. The display will show "WAIT" while the radio performs the necessary signaling required to obtain a working channel. When the signaling is successfully completed, the BUSY display will appear and the proper DTMF tones will be sent and heard at the speaker. When someone answers, press the PTT bar and speak directly into the microphone. Release the PTT bar as soon as you stop talking and wait for a reply.

GE-MARC - MANUALLY ENTERED CALL, Continued

If the signaling is unsuccessful, the radio is out of range or inoperative, "NO SERV" will appear on the display, and a sequence of five beeps will be heard at the speaker. Any subsequent attempt to initiate a call within the next 20 seconds will be ignored. The radio can be cleared from this mode by double clicking the M (Shift/Clr/Monitor) button.

All channels are busy when the signaling is unsuccessful and a one second low frequency tone is heard at the speaker. The call will not be retried automatically.

NOTE: If the "call retry" option is active, the radio will try the channel at twenty second intervals for five minutes before returning to the normal System/Group display.

5. When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

STORING INDIVIDUAL/INTERCONNECT NUMBERS

1. Press SPC (special) key to put the radio into Special Call mode, or key 7 to put the radio into Conference Call mode. The radio displays the last accessed call number from the pre-programmed special call selection. PHONE and the telephone handset icon will display. If no special calls are programmed, the radio displays "SPC CAL".
2. Enter the tone set (individual call) or telephone number to be stored. The last digit entered will always be displayed in the far right hand side of the display. Any previously entered digits will scroll to the left. Only seven digits will be visible in the display - the leading digit will scroll off the display with each new key entry. To backspace and clear a digit, press the SCN key.

NOTE: To recall the last interconnect number entered manually from the keypad, press the RCL (recall) key.

3. Complete the entry by pressing the # key for individual calls or the * key for telephone interconnect calls. They will not be displayed but a tone will sound.

GE-MARC - STORING NUMBERS, Continued

4. Enter a digit between 0 and 9 to select a storage location. The storage location will not be displayed, but a tone will sound. There are 10 storage locations for individual numbers and 10 storage locations for interconnect numbers.
5. Press the STO (store) key to complete the storage procedure.
6. Double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

RECALLING INDIVIDUAL/INTERCONNECT NUMBERS

1. Press the SPC (special) key to put the radio into Special Call mode to send a stored call using the programmed Special Call tone set, otherwise the call will be sent using the selected Group tone set. Press the # key to recall the interconnect call list or the * key to recall the interconnect call list. The display will blank and a tone will sound.
2. Enter the desired storage location number (0-9).
3. Press the RCL (recall) key. If the number is from the individual call list, the last four digits of the tone set will be displayed. If the number is from the interconnect call list, the last seven digits of the telephone number will be displayed. If the memory location is blank, the radio will sound a low pitched tone after the RCL (recall) button is pressed.

INDIVIDUAL CALL - Once the desired individual call number is displayed, press and release the PTT to initiate the call. The display will show "WAIT" while the radio performs the signaling required to obtain a working channel.

When the signaling is successfully completed, the BUSY display will appear and the call originate tones (a three-tone alert) will be heard at the speaker. Press the PTT bar and speak directly into the microphone. Release the PTT bar as soon as you stop talking and wait for a reply.

When the call is complete, double click the M (Shift/Clr/Monitor)

GE-MARC - RECALLING STORED NUMBERS, Continued

button to exit the Special Call mode and return to the normal System/Group display.

INTERCONNECT CALL - Once the desired individual call number is displayed, press and release the PTT to initiate the call. The display will show "WAIT" while the radio performs the signaling required to obtain a working channel.

When the signaling is successfully completed, the BUSY display will appear and the proper DTMF tones will be sent and heard at the speaker. When someone answers, press the PTT bar and speak directly into the microphone. Release the PTT bar as soon as you stop talking and wait for a reply.

If the signaling is unsuccessful, the radio is out of range or inoperative, "NO SERV" will appear on the display, and a sequence of five beeps will be heard at the speaker. Any subsequent attempt to initiate a call within the next 20 seconds will be ignored. The radio can be cleared from this mode by double clicking the M (Shift/Clr/Monitor) button.

If all available channels are busy when the call is attempted, one long beep is heard, and BUSY is displayed. The call will not be retried automatically.

NOTE: If the "call retry" option is active, the radio will display "RETRYNG" and will try the channel at twenty second intervals for five minutes before returning to the normal System/Group display.

When the call is complete, double click the M (Shift/Clr/Monitor) button to exit the Special Call mode and return to the normal System/Group display.

GE-MARC - RECALLING STORED NUMBERS, Continued

GE-MARC SPECIAL CALL KEYPRESS REFERENCE

(INDIVIDUAL CALLS)

To Place: SPC key -- DIGITS -- PTT

To Store: SPC key -- DIGITS -- # key -- 0-9 -- STO key

To Recall and Place: SPC key -- # key -- 0-9 -- RCL key -- PTT

(INTERCONNECT CALLS)

To Place: SPC key -- DIGITS -- * key -- PTT

To Store: SPC key -- DIGITS -- * key -- 0-9 -- STO key

To Recall and Place: SPC key -- * key -- 0-9 -- RCL key -- PTT

GE-MARC CONFERENCE CALL KEYPRESS REFERENCE

(INDIVIDUAL CALLS)

To Place: Key 7 -- DIGITS -- PTT

To Store: Key 7 -- DIGITS -- # key -- 0-9 -- STO key

To Recall and Place: # Key -- 0-9 -- RCL key -- PTT

(INTERCONNECT CALLS)

To Place: Key 7 -- DIGITS -- * key -- PTT

To Store: Key 7 -- DIGITS -- * key -- 0-9 -- STO key

To Recall and Place: * Key -- 0-9 -- RCL key -- PTT

WIDE AREA SYSTEM SCAN

The EP-4800 Series EDACS Trunking Portable radio while operating within a GE-MARC System, may be programmed to scan up to 20 channels from other GE-MARC Systems. The radio will scan the channels in the selected System and if its programmed collect tone is not seen, then it will proceed to scan the channels of the Systems in its wide area scan list. The Group selection may change upon switching to the new System.

GE-MARC - DIRECT MODE OPERATION

The following section describes how to operate the radio within a direct mode System (radio-to-radio).

RECEIVING A MESSAGE

1. Press the M (Shift/Clr/Monitor) button and then use the up/down arrow buttons to select a direct mode System. The SYS display will identify the current System selected.
2. Continue to use the up/down arrow buttons to select the desired channel. The radio is now ready to receive messages.
3. Double click the M (Shift/Clr/Monitor) button and hold to disable squelch and monitor the channel. Adjust the volume control to the desired audio level.

NOTE: Pressing the M (Shift/Clr/Monitor) button twice to monitor the channel may affect the busy tone signaling if programmed for the selected channel.

4. When a message is received and the correct busy tone signal is decoded, (if programmed and enabled) the receiver will unsquelch and the message will be heard.

SENDING A MESSAGE

1. Turn the radio ON and set the desired System and Channel as described in the previous section.
2. Ensure no one is transmitting on the selected channel by:
 - a) double clicking the M (Shift/Clr/Monitor) button – or –
 - b) observe the display - the BUSY indicator should **not** be present.
3. Hold the radio about 3 inches from your mouth, press the PTT button and speak in a normal tone into the microphone.
4. Release the PTT button when your transmission is complete and listen for a reply.

GE-MARC - DIRECT MODE OPERATION, Continued

SENDING A MANUALLY ENTERED INTERCONNECT CALL

1. Select a channel in your radio System that has telephone interconnect capability. The radio should be programmed for DTMF operation on this channel.
2. Press and hold the PTT button to key the transmitter.
3. While holding the PTT button, press either the * key or the # key as required by the radio System to obtain a telephone line. The radio will transmit the selected tone.
4. Release the PTT button and listen for a dial tone. When the dial tone is received, press and hold the PTT button and enter the desired telephone number. As you enter each digit, the DTMF sidetone will be heard in the speaker as the radio transmits the DTMF tone.
5. After the digits have been keyed, release the PTT button.
6. When someone answers, press the PTT button and speak directly into the microphone. Release the PTT button as soon as you stop talking.
7. At the completion of the call, press and hold the PTT button and then enter the * or # key as the telephone interconnect System requires. Release the PTT button.

SCAN OPERATION

ENABLE/DISABLE

To enter channel scan, press and release the SCN (scan) key. SCAN will appear on the display to indicate scan is enabled. To disable scan, press and release the SCN (scan) key. SCAN will disappear from the display.

GE-MARC - SCAN OPERATION, Continued

ADD/DELETE CHANNELS

Channels can be added or deleted from the scan list as necessary. To **add** channels to the scan list:

1. Disable scan function as described in previous section. Channels cannot be added to the scan list while scan is enabled.
2. Select the desired channel to be added. If the current channel is already included in the scan list, the left arrow icon will display.
3. Add the channel to the scan list by pressing the M (Shift/Clr/Monitor) button and then the SCN (scan) key. The left arrow icon will display, and the channel will be included in the list.

To **delete** channels from the scan list:

1. Select the desired channel to be deleted. If the current channel is already included in the scan list, the left arrow icon will display.
2. Delete the channel from the scan list by pressing the M (Shift/Clr/Monitor) button and then the SCN (scan) key. The left arrow icon will disappear, and the channel will be removed from the scan list.

~ End of GE-MARC Operations Section ~

~ Conventional Operations ~

The procedures in the following section describes Conventional Mode operation. Each conventional channel may be programmed with one or more features such as channel guard or telephone interconnect capability. Follow these procedures if operating in a conventional System.

RECEIVING A MESSAGE

1. Turn the radio ON by rotating the On/Off - Volume control clockwise from the OFF (detent) position. After the radio has passed the power-up self test, an optional tone will sound and the current System and Group/Channel will be displayed. If the unit does not pass the test, the display will be blank.
2. Press the M (Shift/Clr/Monitor) button and then use the up/down arrow buttons to select a Conventional System. Press the M (Shift/Clr/Monitor) button again to exit from System select.
3. Use the up/down arrow buttons to select the desired channel. The radio is now ready to receive messages.
4. Double click the M (Shift/Clr/Monitor) button and hold to disable squelch and monitor the channel. Adjust the volume control to the desired audio level.
5. When a message is received and the correct channel guard signal is decoded, (if programmed and enabled), the receiver will unsquelch and the message will be heard.

SENDING A MESSAGE

1. Turn the radio ON and set the desired System and channel as described in the previous section.
2. Ensure no one is transmitting on the selected channel by:
 - a) double clicking and holding the M (Shift/Clr/Monitor) button– or –
 - b) observe the display - the BUSY indicator should **not** be present.

CONVENTIONAL - SENDING A MESSAGE, Continued

3. Hold the radio about 3 inches from your mouth, press the PTT button and speak in a normal tone into the microphone.
4. Release the PTT button when your transmission is complete and listen for a reply.

SQUELCH ADJUSTMENT

In normal operation, the squelch is automatically set by the radio and does not need adjusting. If it becomes necessary to adjust the squelch, use the following procedure:

NOTE: The radio must be on a Conventional System or an EDACS working channel (i.e. receiving a voice call) to adjust squelch from a Conventional System.

Press and hold the M (Shift/Clr/Monitor) button. Use the up/down arrow keys to adjust the squelch. Pressing the up arrow will open the squelch; pressing the down arrow will close the squelch.

SENDING A MANUALLY ENTERED INTERCONNECT CALL

1. Select a channel in your radio System that has telephone interconnect capability. The radio should be programmed for DTMF operation on this channel.
2. Press and hold the PTT button to key the transmitter. While holding the PTT button, press either the * or the # key (as required by the radio System) to obtain a telephone line. The radio will transmit the selected tone.
3. Release the PTT button and listen for a dial tone. When the dial tone is received, press and hold the PTT button and enter the desired telephone number. As you enter each digit, the DTMF sidetone will be heard in the speaker as the radio transmits the DTMF tone.
4. After all the digits have been keyed, release the PTT button.

MANUALLY ENTERED CALL, Continued

5. When someone answers, press the PTT button and speak directly into the microphone. Release the PTT button as soon as you stop talking.
6. At the completion of the call, press and hold the PTT button and then enter the * or # key as the telephone interconnect System requires. Release the PTT button.

CONVENTIONAL SCAN OPERATION

ENABLE/DISABLE

To enter channel scan, press and release the SCN (scan) key. SCAN will appear on the display to indicate scan is enabled. To disable scan, press and release the SCN (scan) key. SCAN will disappear from the display.

ADD/DELETE CHANNELS

Channels can be added or deleted from the scan list as necessary. To **add** channels to the scan list:

1. Disable scan function as described in previous section. Channels cannot be added to the scan list while scan is enabled.
2. Select the desired channel to be added. If the current channel is already included in the scan list, the left arrow icon will display.
3. Add the channel to the scan list by pressing the M (Shift/Clr/Monitor) button and then the SCN (scan) key. The left arrow icon will display, and the channel will be included in the list.

To **delete** channels from the scan list:

1. Select the desired channel to be deleted. If the current channel is already included in the scan list, the left arrow icon will display.
2. Delete the channel from the scan list by pressing the M (Shift/Clr/Monitor) button and then the SCN (scan) key. The left arrow icon will disappear, and the channel will be removed from the scan list.

~ End of Conventional Operation Section ~

LIMITED WARRANTY

Maxon America, Inc. (herein "Maxon") warrants each new radio product manufactured or supplied by it to be free from defects in material and workmanship under normal use and service for two (2) years, provided that the user has complied with the requirements stated herein. The warranty period begins on the date of purchase from an Authorized Maxon Sales and Service Outlet. This warranty is not assignable or transferrable. Maxon is not responsible for any ancillary equipment which is attached or used in conjunction with Maxon products.

During this period, if the end user experiences difficulties with a Maxon product, it should be returned to the Authorized Maxon Sales and Service Outlet from which it was purchased. The Authorized Maxon Sales and Service Outlet will return for repair to Maxon America, Inc. or to its Authorized Repair Depot. Product returned to Maxon America, Inc. must be shipped freight prepaid and be accompanied by a Return Authorization (RA) number, obtained prior to shipment from Maxon's Customer Service Department. The user is responsible for the payment of any charges or expenses incurred for the removal of the product from the vehicle or other site of its use, for the reinstallation of the repaired unit in such site, for the transportation of the product to the place of repair and for the return of the repaired product to the place of its use.

Maxon shall have no obligation to make repairs or to cause replacement required with result from normal wear and tear or necessitated in whole or in part by catastrophe, the fault or negligence of the user, improper or unauthorized alterations, repairs to the product, incorrect wiring, use of the product in a manner for which it was not designed, or by causes external to the product. This warranty is void if the serial number is altered, defaced or removed.

Maxon's sole obligation hereunder shall be to repair or replace the product covered in this Warranty. Repair, at Maxon's option, may include the replacement of parts or boards with functionally equivalent reconditioned or new parts or boards. Replaced parts, accessories, batteries or boards are warranted for the balance of the original time period. All replaced parts, accessories, batteries or boards become the property of Maxon America, Inc.

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