*LBI-39110A*

ERICSSON

*Mobile Communications*

# ALLEGRA™ DUPLEX
PORTABLE RADIO

# Operator's Manual

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## *IMPORTANT SAFETY INFORMATION*

*Some of the following information may not apply to your particular product. However, as with any electrical product, precautions should be observed during handling and use.*

* ***Save this manual**, it contains important safety and operating instructions.*
* *Before using the product, please follow and adhere to all warnings, safety and operating instructions located on the product and in the user's manual.* ***Save all instructions for future reference**.*
* ***Do Not** expose product to water or moisture. Example: near bathtub, laundry sink, wet basement, swimming pools, etc.*
* ***Do Not** expose product to extreme temperatures such as found near a hot radiator or stove, or in a car parked in the summer sun.*
* ***Do Not** expose product to lighted candles, cigarettes, cigars, open flames, etc.*
* *Care should be taken so that objects do not fall or liquids do not spill into the product.*
* ***Do Not** use auxiliary equipment not recommended or sold by the manufacturer. To do so may result in a risk of fire, electric shock or injury to persons.*
* *Connect optional AC adapter only to 110 VAC power source as marked on the product.*
* *Connect the DC power cord only to 12-14 VDC power source as marked on the product.*
* *To reduce risk of damage to electric cord, pull by AC adapter rather than cord when disconnecting unit.*
* *Make sure the cord is located so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.*
* *To reduce risk of electrical shock, unplug unit from power source before attempting any cleaning, then use soft cloth dampened only with water.*
* ***DANGER** - Never alter AC cord or plug. If it will not fit outlet, have a proper outlet installed by a qualified electrician. Improper connection can result in risk of an electric shock.*

* ***Do Not*** *attempt to disassemble the product. This product does not contain customer serviceable components.*

* *Damage Requiring Service - This product should be serviced by qualified service personnel when:*

- *A. The power supply cord or the plug has been damaged; or*
- *B. Objects have fallen, or liquid has been spilled into the product; or*
- *C. The product has been exposed to rain or moisture; or*
- *D. The product does not appear to operate normally or exhibits a marked change of performance; or*
- *E. The product has been dropped, or the cabinet damaged.*

* *If an outdoor antenna is connected, be sure the system is grounded so as to provide some protection against voltage surge and built-up static charges. An outdoor antenna should be located away from power lines.*

## *SAFETY INFORMATION*

*The operator of any portable radio should be aware of certain hazards common to the operation of vehicular radio transmissions.*

*A list of possible hazards follows:*

### *1. Explosive Atmospheres*

*Just as it is dangerous to fuel a vehicle with the motor running, be sure to turn the radio off while fueling the vehicle. Do not carry containers of fuel in the trunk of the vehicle when the radio is mounted in the trunk.*

### *2. Interference to Vehicular Electronics Systems*

*Electronic fuel injection systems, electronic anti-skid braking systems, etc., are typical of the type of electronic devices that may malfunction due to the lack of protection from radio frequency energy present when transmitting. If the vehicle contains such equipment, consult the dealer of your vehicle and enlist his aid in determining if such*

*electronic circuits perform normally when the radio is transmitting.*

### *3. Dynamite Blasting Caps*

*Dynamite blasting caps may be caused to explode by operating a radio within 500 feet of the blasting caps. Always obey the **"Turn Off Two Way Radios"** signs posted where dynamite is being used. When transporting blasting caps in your vehicle:*

***a**. Carry the blasting caps in a closed metal box with a soft lining.*

***b**. Leave the radio **OFF** whenever the blasting caps are being put into or removed from the vehicle.*

### *4. Radio Frequency Energy*

*To prevent burns or related physical injury from radio frequency energy, do not operate the transmitter when anyone outside of the vehicle is within two feet of the antenna.*

### *5. Liquefied (LP) Gas Powered Vehicles*

*Portable radio installations in vehicles powered by liquefied petroleum gas with the LP gas container in the trunk or other sealed-off space within the interior of the vehicle must conform to the **N**ational **F**ire **P**rotection **A**ssociation standard **(NFPA) 58** requiring that:*

***a.** The space containing the radio equipment shall be isolated by a seal from the space containing the LP gas container and its fittings.*

***b.** Outside filling connections shall be used for the LP gas container.*

***c.** The LP gas container shall be vented to the outside of the vehicle.*

## *OPERATING PROCEDURES*

*Two-way FM radio systems must be operated in accordance with the rules and regulations of the Federal Communications*

*Commission (FCC). Operators of two-way radio equipment must be thoroughly familiar with the rules that apply to the intended type of radio operation. Following these rules helps to eliminate confusion, assures the most efficient use of existing radio channels, and results in a smoothly functioning radio network. When using this two-way radio remember these rules:*

1. *It is a violation of FCC rules to interrupt any distress or emergency message. As the radio operates in much the same way as a telephone "party line", always listen to make sure that the line is clear - that no one else is on the air - before sending messages. If someone is sending an emergency message - such as reporting a fire, or asking for help in an accident - **KEEP OFF THE AIR!** Emergency calls have priority over all other messages.*

2. *Use of profane or obscene language is prohibited by Federal law.*

3. *It is against the law to send false call letters, or a false distress or emergency message.*

***NOTE***

*The EDACS® trunking environments have automatic identification features built in and do not require the user to identify by means of call letters.*

4. *The FCC requires that conversations be kept brief and confined to business. To save time, use coded messages whenever possible.*

5. *Using a radio to send personal messages (except in an emergency) is a violation of the FCC rules. Send only those messages that are essential for business operation.*

6. *It is against Federal law to repeat or otherwise make known anything overheard on the radio. Conversations between others sharing a channel must be regarded as confidential.*

7. *The FCC requires the operator to transmit station identification at certain times by means of call letters. Refer to the FCC rules*

*for your station's particular type of operation for the proper procedure.*

8. *No changes or adjustments shall be made to the equipment except by an authorized or certified electronics technician.*

***NOTE***

*Repairs to this equipment should be made only by an authorized service technician or facility designated by the supplier. Any repairs, alterations or substitution of recommended parts made by the user to this equipment not approved by the manufacturer could void the user's authority to operate the equipment in addition to the manufacturer's warranty.*

## *INTRODUCTION*

*This manual describes how to use the Allegra Duplex Portable Radio. The Allegra Duplex is a synthesized, microprocessor-based, high performance duplex portable FM radio providing reliable two-way communications in Enhanced Digital Access Communications System (EDACS) trunking environments. This radio comes in two models: Interconnect only or Interconnect/Dispatch.*

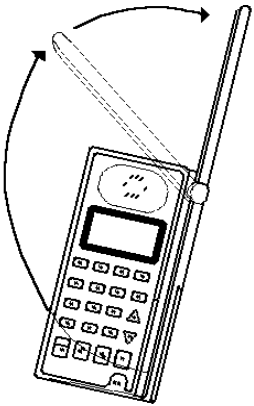
*Duplex operation is provided in EDACS systems while operating in the Telephone Interconnect Mode. At all other times, the radio provides simplex communications, i.e. when placing group calls in the EDACS environments or when operating in the conventional mode.*

*In an EDACS trunked environment the user selects a communications system and group. In this mode, channel selection is transparent to the user and is controlled via digital communication with the system controller. This provides advanced programmable features and fast access to communication channels.*

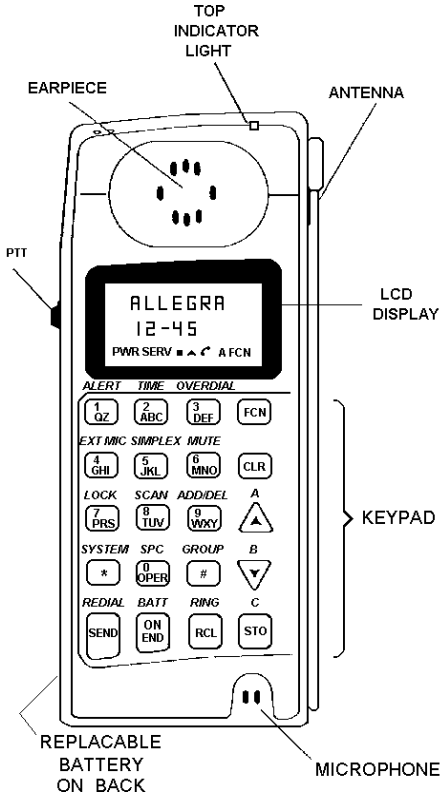
*The exact operation of the radio depends on the radio model, the operating mode, the radio's programming, and the particular radio system. Most features described in this manual may be enabled or disabled through programming. Consult the system administrator for the required features to be programmed into the radio.*

*Indicates Interconnect/Dispatch Model Only operation or feature.*

*The portable radio has an antenna which can be unfolded so that it points directly upwards and, when not in use, can be folded down completely.*



*The 20-button keypad, an internal speaker and a liquid crystal display (LCD) for radio status information are located on the front of the radio. Viewed from the radio's front, a Push-To-Talk (**PTT**) button is located on the left side (Interconnect/Dispatch Model Only).*



*The keypad is used for manual number entry for individual calls, access to a telephone interconnect system and activation of various EDACS or conventional features. The keypad is divided into both a function portion and a numeric portion as is found on a basic push-button telephone.*

*The display has an eight alphanumeric character line (upper line) used to show the operational mode of the radio and has a numeric character line (middle line) used to show talk time. Eight status indicators, used to indicate various operating conditions, such as; function key pressed, transmitter on, service available, radio in use, horn alert active, radio locked or transmit muted, are located below the character lines within the display.*

## *USER INTERFACE*

### *BUTTON*

**PUSH–TO–TALK (PTT) BUTTON** *Enables the radio's transmitter. **PTT** must be held down to transmit during simplex operation.*

### *KEYPAD*

### *Function Portion*

*Two functions button;*

***1. Momentarily Press.***

*Terminates any ongoing activity. If the radio is designated as supervisory, it drops any ongoing group call.*

***2. Press and Hold (approximately 2 seconds).***

*Applies power to the radio. Press and hold the ON/END button to turn the radio on. All status indicators turn on momentarily and after 2 seconds a short beep is heard and the message "**---ON---**" will be displayed on the LCD. Press a second time to turn the radio off. After 2 seconds short beep is heard and the message "**TURN OFF**" will be displayed on the LCD. When turned off, the radio retains the*

*last user selections (unless programmed for a particular power up option).*

SEND — *Initiates a call by sending the number shown in the display, or functions as the* **PTT** *button if no number has been previously entered.*

CLR — *Clears the last digit entered when pressed and released. Press and hold for at least one second to clear the entire number.*

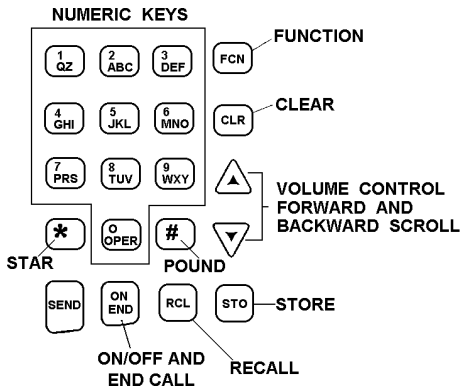
STO — *Stores numbers in memory locations.*

FCN — *Activates extended features. The extended features are labeled above each associated key on the keypad.* FCN *is pressed before the associated key to enable the secondary function of that key. The extended keyboard is available as long as the* **FCN** *icon is displayed*

RCL — *Recalls numbers from memory locations.*

**NOTE**

*When the* ***VOLUME UP*** *or* ***VOLUME DOWN*** *button is pressed, the volume setting can be momentarily displayed on the LCD (e.g., VOL=15) if the radio is not actively receiving a call and the function is enabled through programming. If not programmed with a power up volume level, the radio retains the last setting used when the radio was powered off.*



***VOLUME UP BUTTON***

*Increases the volume level. 15 is the maximum level.*

***VOLUME DOWN BUTTON***

*Decreases the volume level. 00 is the minimum level unless programmed otherwise.*

***Numeric Portion***

0 OPER – 9 WXY *Enters telephone numbers and activates extended features.*

* *Ramps through the system list and selects a system.*

*DURING A CALL - sends the DTMF (Dual-Tone Multi-Frequency) tone for *.*

*IN DISPATCH MODE - brings up the dial tone.*

\# *Ramps through the group and channel list and selects a group or channel.*

*DURING A CALL - sends the DTMF tone for #.*

*Provides a pause during keypad entry of the DTMF numbers. This function is activated, when a first number 0..9 of the request telephone number was pressed.*

***Extended Features - 1***

*Press* FCN *first then one of the following keys or buttons.*

| ***Key*** | ***Function*** | ***Comments*** |
|---|---|---|
| 1 QZ | *ALERT* | *Enables/disables the horn alert feature. Once to turn on, again to turn off.* |
| 2 ABC | *TIME* | *Displays call timer (active if call is in progress, last call length if call is not in progress).* |

| | | |
|---|---|---|
| 3 DEF | OVERDIAL | Enables overdial mode for placing/storing dispatch overdial calls. |
| 4 GHI | EXT MIC | Toggles between external and internal microphone. |
| 5 JKL | SIMPLEX | Toggles between simplex only and duplex operation. |
| 6 MNO | MUTE | Enables/disables microphone mute during duplex operation. |
| 7 PRS | LOCK | Locks the radio and keypad. (Provided code has been pre-programmed). |
| 8 TUV | SCAN | Enables/disables group scan operation. |
| 9 WXY | ADD/DEL | Adds or deletes groups from the scan list. |
| 0 OPER | SPC | Enters Special Call Mode. |
| * | SYSTEM | Changes the ramp direction for systems or directly accesses systems. |
| # | GROUPS/ CHANNELS | Changes the ramp direction for groups or channels or directly accesses groups. |
| ▲ | A | Flex Keys that can be used in two ways: |
| ▼ | B | 1) quick dial frequently called or emergency numbers, |
| STO | C | 2) extended functions such as Special Calls, Public Address, Horn Alert, Emergency, or Home System/Group. Each **"Flex Key"** can store one number for a total of three. |
| RCL | RING | Set the one of the four ring volume level. RING MIN, RING -2-, RING -3-, RING MAX |

***Extended Features - 2***

*Press and hold* FCN *first and one of the following keys twice.*

| ***Key*** | ***Function*** | ***Comments*** |
|---|---|---|
| 2 ABC | *TESTMODE* | *Enters testmode (if enabled).* |
| 3 DEF | *ver group* | *Hold* STO *key to display current software Group Version (as **GXX VXX**).* |

## *DISPLAY*

*The radio's display is shown below. The alphanumeric field is used to display system and group or channel names and also operational messages to the user. This line contains eight 14-segment alphanumeric characters. The middle numeric field displays call time length in minutes and seconds. The bottom line displays eight status flags .*

***Status Indicators***

*Eight status indicators show the various operating characteristics of the radio. Indicators are displayed to show the current operating status of the radio.*

**FCN** *Indicates an extended function is currently being selected.*

**PWR** *Indicates the transmitter is active.*

**SERV** *Indicates the radio is in the range of a system and the control channel is available .*

*Indicates the radio is receiving a signal on the selected channel or group.*

**(IN USE)**

**A** *Indicates the radio is configured to notify the user via an external alarm that an individual call has been received.*

**B** *Not used.*

**Δ** *Indicates the radio's keypad is locked.*

**■** *Mute icon - indicates the radio has the transmit audio disabled (only valid during duplex operation).*

## *ALERT TONES*

*The Allegra Duplex radio generates a set of unique alert tones to indicate operating status. The following section identifies and describes the alert tones used in the Allegra Duplex radio for Conventional and EDACS applications .*

## *EDACS APPLICATIONS*

### *CALL ORIGINATE ALERT*

*If programmed, a short tone is sounded whenever the PPT button or SEND key is pressed and the radio has acquired a channel. This tone indicates the user may begin communications.*

### *CALL QUEUED*

*If one short, high pitched tone sounds after the transmitter is keyed, this indicates that the system has placed the request in a queue. This 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 PPT button or SEND key is pressed while in queue, the radio autokeys (automatically keys) push-to-talk when a channel becomes available (see AUTOKEY).*

***AUTOKEY***

*When the PPT button or SEND key is pressed to place a call on the system, but is released before the channel is assigned (e.g. a queued call), the radio automatically keys 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***

*If you press the PPT button or SEND key and hear three short, medium pitched tones, this indicates that the receiving party is already on the system or the system is busy and its queue is full. You must rekey later to access the system.*

***CALL DENIED***

*A single low pitch beep sounds when the PPT button or SEND key is pressed and the request is denied by the system. This happens if the unit is an invalid user or if the unit is requesting an unavailable service.*

***OUT OF RANGE SYSTEM INOPERATIVE***

*A single low pitched tone sounds immediately after the PPT button or SEND key is pressed 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.*

## *OPERATION*

### *GENERAL*

#### *Turning The Radio ON/OFF*

*The radio is powered* ***ON*** *by pressing and holding the* [ON END] *button. All status indicators turn on momentarily and after 2 seconds a short beep will be heard and a message* "**---ON---**" *will be displayed on the LCD. A self diagnostic test is performed when the radio is first turned on if enabled through programming. In the Interconnect Only Model, the display will then display* "**CC SCAN**" *if looking for the contact channel or* "**READY**" *when the control channel has been found and a call request can be placed. To turn the radio* ***OFF*** *press and hold the* [ON END] *button again. After 2 seconds a short beep will be heard and a message* "**TURN OFF**" *will be displayed on the LCD. When turned off, the radio retains the last user selections (unless programmed for a particular power up option).*

*Additionally, the* [ON END] *key is used to terminate interconnect and individual calls.*

#### *Volume Adjust*

*The user can adjust the volume at any time using the* [▲] *and* [▼] *buttons. If the volume is adjusted while a call is in progress, no audible beeps are heard. If no call is in progress, a short beep is heard, in addition to the visual indication, if enabled. Additionally, the user selected "off-hook" volume level is saved separately from the user selected "on-hook" volume level.*

### *EDACS OPERATION*

#### *System Selection-Ramping Names*

*The operator can ramp through the programmed system names list by pressing and releasing the* [*] *key.*

*If the radio is programmed for a non-split display then the selected talk group is displayed when the radio is idling. The first time the* [*] *key is pressed the radio displays the selected system name. This name remains on the display*

*for the programmed display time-out period. If the* [*] *is released and then pressed again during this time the radio ramps to the next system name in the list.*

*If the radio is programmed for a split display then both the selected system and group are displayed when the radio is idling. The first time the* [*] *key is pressed the radio ramps to the next system name in the list.*

*The ramp direction through the system name list is selectable. It is toggled by pressing the* [FCN] *key.*

### *System Selection-Direct Number Entry*

*Direct system selection can be made by entering (1) the system selection digit(s), (2) pressing* [FCN]*, (3) pressing* [*]*. If an invalid number is entered, the first system is selected.*

### *Group Selection-Ramping Names*

*The desired group is selected by pressing and releasing* [#]*. The ramp direction of the group selection is changed by pressing* [FCN] *and then* [#]*.*

### *Group Selection-Direct Number Entry*

*Direct group selection can be made by entering (1) the group selection digit(s), (2) pressing* [FCN]*, (3) pressing* [#]*. If an invalid group number is entered, the first group is selected.*

### *Unlocking The Radio*

*After the portable is locked the user can unlock the portable by keying in the lock code. If an incorrect digit is entered simply start over with the correct code. If the lock code is forgotten, contact the system operator.*

***Locking The Radio***

*The radio can be locked by pressing* FCN *followed by* 7 PRS*. The* Δ *icon is displayed. In this mode calls cannot be originated. This feature is operational only if a lock code is entered during radio programming. Lock codes can be 1 to 15 digits long.*

***Programmable Flex Keys***

*Flex keys automatically recall and execute the function stored at that location without further user intervention. Pressing* FCN *followed by* ▲ ***-(A),*** ▼ ***-(B)*** *or* STO ***-(C)*** *activates the function.*

***Interconnect Dialing***

*To place an interconnect call, the user simply enters the desired number using the digit* ***(9-0)*** *keys and presses the* SEND *key.*

***REDIAL Key***

*Pressing the* FCN *key and then the* SEND *key, redials the last number dialed.*

***Individual Call Dialing***

*To place an individual call, the user enters the desired* ***LID*** *number and presses the* ***PTT****.*

*To program the Flex Keys enter the following key sequence:*

1. *Enter the desired phone number/****LID****.*
2. *Press the* * *key if the number is a phone number or the* # *if the number is a radio* ***LID*** *or dispatch overdial/ID.*
3. *Press the* STO *key.*
4. *Press the* ***A, B,*** *or* ***C*** *key that is to be associated with this call number.*

*When a Flex Key is PC programmed, it is locked, thus preventing the user from re-programming its function.*

## ***Individual Call Notification***

*When an individual call is received the caller's ID is stored and is displayed for a programmable time period. After the display time has expired, the last individual call received is recallable by pressing the* RCL *button or entering Special Call mode. The caller's ID is not saved if the radio is turned off.*

*The user is alerted to the presence of missed individual calls via one of two methods. The default first method is for the radio to display "***C***" as the first two characters in the display. The alternate method allows the user to PC program an eight character alphanumeric such as "****MSG****". In combination with these notification methods, the personality can be set-up so that the radio beeps until the user clears the call or toggles the hookswitch.*

## ***Storing An Individual Call ID***

*This type of call is dynamically stored to the call list by following the following steps:*

1. *Enter the desired individual call ID then* # *followed by the* STO *key.*

2. *Enter the two digit storage location for the number (00 to 50). The new individual call ID is now added to the call list.*

## ***Using Special Call Lists***

*In the Allegra Duplex Portable, the difference between a "Call List" and "Special Call List" is that the Call List consists of user modifiable phone numbers and radio* ***LID****s. It operates similarly to a pre-stored phone list in a cellular phone. A "Special Call List" is PC programmable and is not user modifiable.*

***Storing A Telephone Number To The Call List***

*The number of dial locations (10, 20, 30, 40, or 50) available is set through radio programming. The maximum number of digits stored in any location is 14. The user may dynamically add phone numbers to the call list by following these steps:*

1. *Enter the phone number, then* [*], *followed by* [STO].
2. *Enter the two digit storage location for the number (00 to 50).*

*The new phone number is now added to the call list at the specified location.*

***Recalling calls from the call list***

*Each pre-stored call number has a corresponding phone number. To dial the phone number, select the 2 digit call number and press* [RCL]. *Alternately, the user can scroll through the call list using the* [RCL] *key to scroll forward through the list.*

***Simplex Operation***

*The user can choose to terminate duplex operation and still maintain the interconnect call in progress by pressing* [FCN] *followed by* [5 JKL]. *This key sequence toggles between simplex and duplex operation.*

****/System Key usage***

*The* [*]**/System** *ramp button is used in multiple contexts. When pressed while in monitor mode (i.e. radio is not in a special or interconnect call) the radio ramps through available systems in one direction. If* [FCN] *followed by* [*]**/System** *is pressed, system ramping takes place in the opposite direction. If this key is pressed after any key other than* [FCN] *the* [*] *is returned.*

***CLR key Usage - Last Digit Clear And Display Clear***

*To clear the last digit entered in the display, momentarily press* [CLR]. *To clear the entire display, press* [CLR] *and hold for at least one second.*

*For functions without associated icons the current status is displayed by pressing* [FCN] *key followed by the desired function. At that time the current state is displayed in the radio's character display. If the state is to be changed, the user must again press the desired function key at which time the new state is displayed. Once the user is satisfied with the selection, let the display expire by not pressing any keys, or press* [ON END] *to signify that the current activity has ended.*

*Additionally, if the radio is programmed as a supervisory radio, the* [CLR] *key can be used to terminate activity, i.e. clear emergencies (* [CLR] [FCN] ***A, B,*** *or* ***C*** *for 2 seconds), drop calls, etc.*

***1/ALERT Key***

*The horn alert option can be pre-programmed to: 1) generate a 1 second horn blast, 2) generate three 1/2 second horn blasts, or 3) generate a continuous horn blast when a call is received. This function is enabled or disabled by pressing* [FCN] *and then* [1 QZ]. *Pressing* ***PTT*** *during the alert tone prevents blowing the horn. The horn alert remains enabled for subsequent calls until disabled.*

***2/Call Timer***

*The call timer function causes the time duration for the current interconnect call to be displayed. Note that the call timer starts when an interconnect call is initiated. During a conversation the call timer is displaying on the middle line of LCD. The time display is automatically removed after a preset time-out or can be removed from the display by pressing* [CLR]. *Call timer can be refresh by pressing* [FCN] *followed by* [2 ABC]. *Time of the last interconnect call will be displayed.*

***4/EXT MIC (HANDSFREE)***

*The external mic (Handsfree) option routes audio to an external Portable or Vehicle Handsfree unit. To enable the external mic, press* FCN *followed by* 4 GHI*. Toggling this function provides the user with the capability to have private conversations or allow other passengers in the vehicle to participate in the conversation (Vehicular Option). The character display shows* "**INT MIC**" *if the internal speaker/mic is currently active. To toggle the state to the external speaker/mic press* 4 GHI *key twice while the* **FCN** *icon is on. (NOTE: With an external device connected the Allegra will always "power-up" with the external unit enabled.)*

***5/SIMPLEX***

*When operating in the simplex mode, the* **MUTE** *icon follows the state of the transmit audio. While in simplex mode,* ***PTT*** *must be pressed prior to speaking. (NOTE: Applicable only in the interconnect mode.)*

***6/MUTE***

*This function enables the user to mute the transmit audio when operating in the duplex mode. To disable the microphone so the called party cannot hear the conversation, press* FCN *followed by* 6 MNO*.* **MUTE** *is displayed. Re-enable the microphone using the same key press sequence. The call is muted only for the duration of the current interconnect call.*

***8/SCAN***

*Scan operation is controlled by this key sequence (i.e.* FCN *followed by* 8 TUV ***/SCAN****). Display will read* "**SCAN ON**" *or* "**SCAN OFF**"*. (Note: Scan must be off to add/delete groups).*

***9/SCAN ADD/DELETE***

*Note: scan must be turned off before editing the scan list. To edit the scan list, press* FCN *followed by* 9 WXY*. The upper display line will show* "**SCAN A/D**"*. Press* 9 WXY *again. The*

*display should change to the current group name. Press* [#] *to ramp up to the group to be changed. Then press* [*] *to ramp through the scan options. For a trunked system, these options are "not in scan" and "in scan". For a conventional system, the options are "not in scan", "in scan" a "priority 2 channel", or a "priority 1 channel". The scan state replaces the first two letters of the group name. The complete group name means the group is "not in scan". A display line beginning with "S" means the group is "in scan". To exit, press the* [ON END] *key.*

## ***0/SPC***

*Entering* [FCN] *followed by* [0 OPER]***/SPC*** *accesses the Special Call List. This list is a programmable set of call numbers that the user can invoke by scrolling to the desired call number in the alpha-numeric display and then depressing the* ***PTT****. Scrolling forward through this list is done by pressing* [#]***/GROUP****. Scrolling backward through this list is done by pressing* [FCN] *followed by* [#]***/GROUP****. (See Special PC programming functions in TQ-3373, for programming of the Special Call List.) Terminate Special Call List access by pressing* [ON END]*.*

## ***Pause***

*A pause is entered into a stream of DTMF numbers being dialed via the keypad. The operator enters* [▲] *or* [▼]*. The length of pause is PC programmable.*

## ***Call Time-outs***

*The Allegra Duplex Portable provides several time-out options to accommodate user needs. They are summarized below:*

- *Carrier Control Timer (CCT)*

  *This timer is provided to limit continuous transmit time (when not in a duplex mode of operation). A single value can be selected that applies to all trunked operation. Each conventional channel has the option of enabling or disabling the timer on a per channel basis.*

- *Voice Scan Lockout Timer*

  *Provides a time limit that disables group scanning following initiation of a voice call.*

- *Special Call time-out*

  *Drops the radio out of special call mode after a specified period of operator inactivity.*

- *Individual/Interconnect Call time-out*

  *A time-out that drops the radio out of an individual/interconnect call after a specified period of time.*

## ***Emergency***

*Any one of the three Flex Keys (**A**, **B**, or **C**) can be programmed to function as the emergency button.*

*If the radio is programmed as a supervisory radio, it is allowed to clear emergencies from the system. When the message "**EMRGNCY**" is displayed, pressing the* CLR *button followed by the Emergency button (combination* FCN ***A***, ***B***, *or **C**) causes the radio to attempt to clear the emergency.*

### *Automatic Login*

*The Allegra Duplex Portable supports Automatic Login for EDACS trunked systems.*

### *Wide Area System Scan*

*The Allegra Duplex Portable supports Wide Area Roaming. When scanning, there is a programmable time interval that determines when the radio starts scanning the next site.*

### *Supervisory Mode*

*When a Allegra Duplex Portable is programmed as supervisory, it is capable of handling all normal supervisory functions.*

### *Programmable Audio/Display*

*Each EDACS system has a programmable option to handle display and audio during emergency conditions. When an emergency occurs, the display option can be programmed to hold the display unchanged until the **PTT** button is pressed or the emergency is cleared. The audio option, similarly, causes the radio to remain muted until **PTT** is pressed or the emergency is cleared.*

### *Priority System Scan*

*This option allows the Allegra Duplex Portable to search for a second operating system while locked onto the control channel of the selected system. If a second control channel is found, the radio switches to that system. The scan frequency is programmable.*

### *Group Options*

*Each EDACS trunked system uses a set of groups. Each set allows for a home Group ID, Dynamic Regroup/encoding, and Emergency calls. In addition to each group ID the following options are supported.*

### *TX Disable-Group Option*

*This option prevents keying a radio on a particular group (monitor only).*

***Rx Disable-Group Option***

*This option prevents unmuting a radio on a particular group.*

***Control Channel Limits***

*This option provides for limited scanning of a frequency set for a control channel. When programmed, the radio is only capable of scanning a subset of channels for a control channel. This is useful in large wide area scanning systems to speed up the scan process.*

## *CLEANING INSTRUCTIONS*

*The radio can be cleaned with a damp cloth, using a mild solution of liquid detergent and water or with a soft cloth and furniture polish. Never use an abrasive or a petroleum based solvent cleaner.*

## *BATTERIES AND RECHARGING*

### *BATTERIES*

***Battery Voltage Indicator***

*A battery voltage is shown on the alphanumeric line of the display, when BATT keys are pressed (* FCN , ON END *). "BATT-6,0" means that the battery has a charge of 6.0 Volts. A fully charged battery will have 6.5 Volts or more. A battery which is almost empty will have 5.6 Volts or less.*

***Low Battery Alarm***

*As a reminder that the attached battery needs recharging or replacing, an alarm signal sounds for a short time and the message* "**LOW BATT**" *appears in the display. Additionally, the red low battery LED indicator located on the top side of the radio will flash.*

*If the radio is left on, the low battery alarm will be repeated several times and, eventually, the radio will turn itself off.*

*If the low battery alarm sounds will a call is in progress, you should end the call . If the call continues, the radio will turn itself off after a short period.*

## *CARE AND MAINTENANCE*

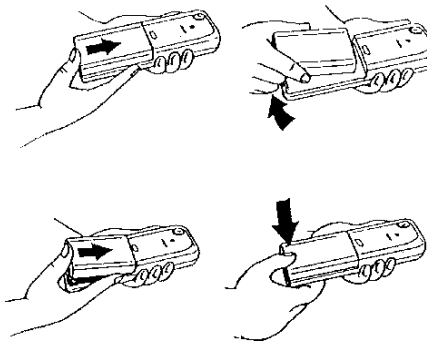
*The batteries are of the Nickel-Cadmium type. They have a long maintenance-free service life if properly treated.*

* ***Never** let a battery get into contact with metal objects that may short-circuit the battery poles, for example a bunch of keys in a pocket.*
* ***Do Not** disassemble a battery.*
* *A battery may explode if disposed of in a fire.*

## ***INSERTING AND REMOVING A BATTERY***

***Standard Battery***

***Removal:***



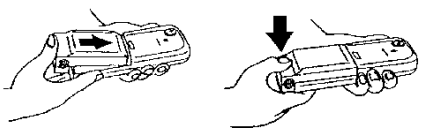
***Optional High Capacity Battery***

***Removal:***

*Grasp and move buttons in direction away from radio unit.*

*Lift battery up and away from radio unit.*

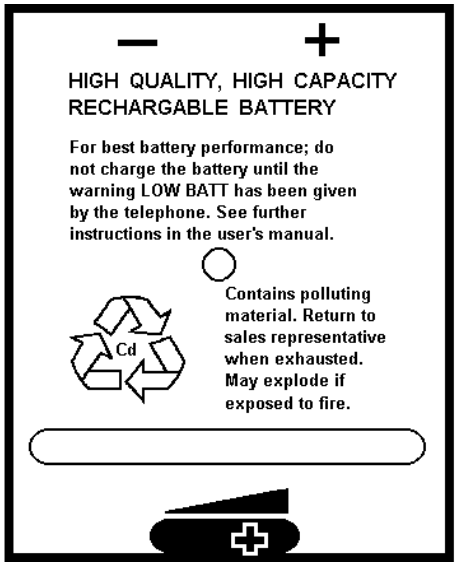
***Insertion:***



***SLIDE INDICATOR***

*The battery has a slideable indicator which you can use to tell an empty battery from a charged battery. Slide the indicator to the left if the battery is empty, to the right if the battery is charged.*

*If you are uncertain of the state of charge of a battery, you can attach the battery to the radio. If the radio does not come on when the* ON END *(Power) key is pressed, the battery is probably empty.*



***RECHARGING***

*Avoid recharging a battery before the low battery alarm has been issued, unless a Smart Charging Accessory is used.*

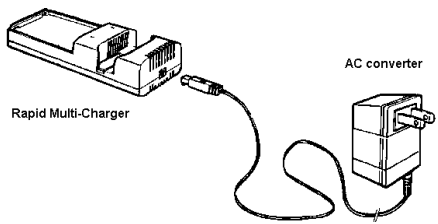
*Never recharge a battery when the ambient temperature is below 10°C or 50°F, or above 40°C or 105°F.*

***Using Rapid Multi-Charger***

*The charger will not charge if the ambient temperature is below 25°F or above 105°F or if the battery voltage is below 3 V.*

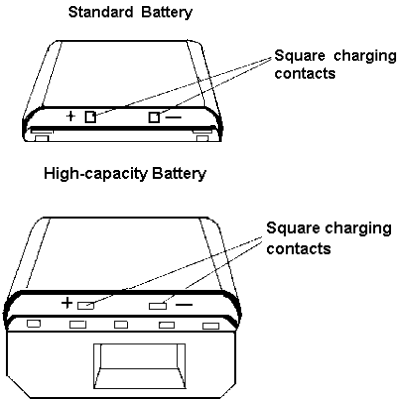
1. *Plug the AC converter into an AC outlet.*

2. *Position the converter cable connector so that it fits in the jack on the end of the charger and push it in. As the connector makes contact, the arrow-shaped LEDs on the charger's face flash yellow.*




***Charging a Battery Out of the Phone***

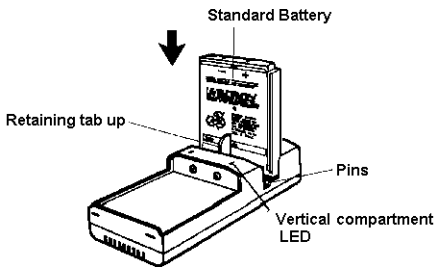
1. *Locate the end of the battery with rectangular charging contacts. The contacts are labeled + and -.*




2. *If you are charging a Standard battery, lift the retaining tab in the vertical compartment to hold the battery in place.*

*If you are charging a High Capacity battery in the vertical compartment, leave the tab down.*

3. *Place the battery in the vertical compartment with the rectangular charging contacts down and the inner surface of the battery toward the center of the charger.*

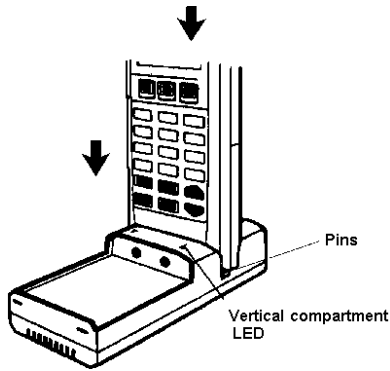



4. *When you remove the battery from the charger, move the orange slide indicator on the battery to the plus position as a reminder that the battery is fully charged.*

### *Charging While the Battery is in the Phone*

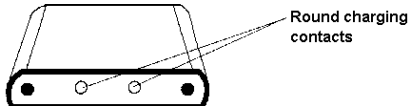
1. *Make sure the retaining tab in the vertical compartment of the charger is down.*

2. *Place the phone in the vertical compartment with the keypad facing the center of the charger. When the battery is seated, the LED shows red to indicate that the battery is charging.*



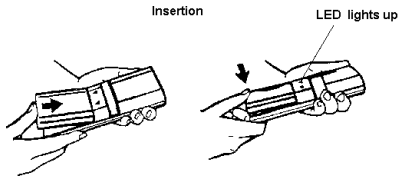

### *Charging Your Battery*

*To place Standard or High-capacity batteries in the horizontal compartment, use the following procedure.*




1. *Locate the end of the battery with round charging contacts.*

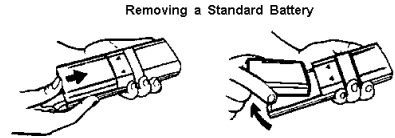
2. *Orient the battery with its inner surface down and place the round charging contacts on the pins in the horizontal compartment. Press the battery into place. The arrow LED pointing to the horizontal compartment should light up.*




### *Removing Battery*

*Follow these procedures to remove a Standard or a High-capacity battery from the horizontal compartment.*

1. *To remove a Standard battery, press the battery forward toward the pins and pull up.*




*To remove a High-capacity battery, squeeze and pull back on both of the battery's side release buttons and lift up and away from*

*the charger.*

2. *When you remove the battery from the charger, move the orange slide indicator on the battery to the plus position as a reminder that the battery is fully charged.*

***Using the Rapid Travel Charger***

1. *Connect the charger cable to the bottom of the radio unit. This will permit the charging of the standard battery (only) or to power the radio.*

2. *Plug the AC Adapter into a 120 VAC wall outlet.*

***Using Smart Charging Accessories***

*Some accessories supply power that the radio controls to charge the battery. Most batteries can be charged in under 2 hours. When charging has been completed, or the phone is off, the power is reduced. The phone may remain connected to the accessory for as long as you wish.*

*If the battery has not been used for several months, connect the radio to the accessory for a few minutes before turning on the radio.*

***Restoring Battery Capacity***

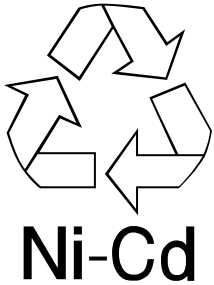
*If you often recharge a battery before the low battery alarm has been issued, the battery's ability to accept charge will be impaired. This will result in less and less operating time between recharges. To restore the battery, perform the following:*

1. *Use the radio as you normally would, until the low battery alarm has been issued.*
2. *Allow the radio to remain on until it turns itself off.*
3. *Charge the battery using either the desk-top charger or a Smart Charging Accessory.*

*After discharging and recharging the battery this way, it can be used for a longer period before the next recharge is required. To get the longest period between charges, repeat this procedure 3 or 4 times.*

*Also if battery has not been used for several months, it may require 3 or 4 charge-discharge cycles to return to full capacity.*

***Rechargeable Battery Pack Disposal***




*The product you have purchased contains a rechargeable battery. The battery is recyclable. At the end of it's useful life under various state and local laws it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details concerning recycling options or proper disposal in your area. Call Toll Free 1-800-822-9362 for information and/or procedures for returning rechargeable batteries in your state.*

***AVAILABLE OPTIONS***

*The following equipment options are available for the Allegra Duplex Portable. Refer to your radio supplier for ordering information.*

| ***OPTION*** | ***DESCRIPTION*** | ***PART NUMBER*** |
|---|---|---|
| *DYPA5Z* | *900 mAh Standard Battery* | |
| *DYPA7A* | *1400 mAh High Capacity Battery* | |
| *DYCH5B* | *AC Rapid Multi-Charger for Slimline, Standard & High Capacity Batteries* | |
| *DYCH5DF* | *AC Rapid Travel-Charger* | |
| *DYCF1F* | *Power Adapter Plus, allows the Allegra to be powered through a vehicle cigarette lighter receptacle and/or re-charges a standard or slimline battery.* | |
| *DYMN7A* | *Vehicle Handsfree Install Package.* | |

## *FREQUENTLY CALLED NUMBERS*

| *MEMORY LOCATION* | *NAME* | *TELEPHONE NUMBER* |
|---|---|---|
| *01* | | |
| *02* | | |
| *03* | | |
| *04* | | |
| *05* | | |
| *06* | | |
| *07* | | |
| *08* | | |
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| *20* | | |
| *21* | | |
| *22* | | |
| *23* | | |
| *24* | | |

## *NICKEL-CADMIUM BATTERY WARRANTY*

*A. Ericsson GE Mobile Communications Inc. (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that nickel-cadmium batteries supplied by Seller shall be free from defects in material and workmanship, and shall conform to its published specifications for a period of twelve (12) months from the date of purchase.*

*B. For purposes of this warranty, batteries shall be deemed defective if (1) the battery capacity is less than 80% of rated capacity, or (2) the battery develops leakage.*

*C. If any battery fails to meet the foregoing warranty, Seller shall correct the failure by issuing a replacement battery upon receipt of the defective battery at an authorized General Electric Service Station (GESS). To obtain the name and address of a GESS, ask your salesperson, consult the Yellow Pages, or call the number printed at the bottom of this page.*

*D. Replacement batteries shall be warranted only for the remaining unexpired warranty period of the original battery. This warranty becomes void if:*

*(1) The battery has been subjected to any kind of misuse, detrimental exposure, or has been involved in an accident.*

*(2) The battery is used in equipment or service other than the radio equipment for which it is specified.*

*E. The preceding paragraphs set forth the exclusive remedies for claims (except as to title) based upon defects in or non-conformity of any battery, whether the claim is in contract, warranty, tort (including negligence), strict liability or otherwise, and however instituted. Upon the expiration of the warranty period, all such liability shall terminate. The foregoing warranties are exclusive and in lieu of all other warranties, whether oral, written, expressed, implied or statutory. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAMAGES.*

*This warranty applies only within the United States.*
*1-800-528-7711 (Outside U.S.A. 804-528-7711).*

*ECX-841B*

# *WARRANTY*

*A. Ericsson GE Mobile Communications Inc. (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that Equipment manufactured by Seller shall be free from defects in material, workmanship and title, and shall conform to its published specifications. With respect to any Equipment not manufactured by Seller (except for integral parts of Seller's Equipment to which the warranties set forth above shall apply). Seller gives no warranty, and only the warranty, if any, given by the manufacturer shall apply. Batteries are excluded from this warranty but are warranted under a separate Nickel-Cadmium Battery Warranty.*

*B. Seller's obligations set forth in Paragraph C below shall apply only to failures to meet the above warranties (except as to title) occurring within the following periods of time from date of sale to the Buyer and are conditioned on Buyer's giving written notice to Seller within thirty (30) days of such occurrence:*

1. *for fuses, incandescent lamps, vacuum tubes and non-rechargeable batteries, operable on arrival only.*

2. *for parts and accessories (except as noted in B.1) sold by Seller's Service Parts Operation, ninety (90) days.*

3. *for all other Equipment of Seller's manufacture, one (1) year.*

*C. If any Equipment fails to meet the foregoing warranties, Seller shall correct the failure at its option (i) by repairing any defective or damaged part or parts thereof, or (ii) by making available at Seller's factory any necessary repaired or replacement parts. Any repaired or replacement part furnished thereunder shall be warranted for the remainder of the warranty period of the Equipment in which it is installed. Where such failure cannot be corrected by Seller's reasonable efforts, the parties will negotiate an equitable adjustment in price. Labor to perform warranty service will be provided at no change only for the Equipment covered under Paragraph B.3, and only during the first three (3) months following the date of sale to the Buyer. Thereafter, labor will be charged at prevailing rates. To be eligible for no-charge labor, service must be performed by an authorized General Electric Service Station or other Services approved for these purposes either at its place of business during normal business hours, for mobile or personal equipment, or at the Buyer's location, for fixed location equipment. Service on fixed location equipment more than thirty (30) miles from the Service Station or other approved Service's place of business will include a charge for transportation. Equipment located off-shore is not eligible for no-charge labor.*

*D. Seller's obligations under Paragraph C shall not apply to any Equipment, or part thereof, which (i) has been modified or otherwise altered other than pursuant to Seller's written instructions or written approval or, (ii) is normally consumed in operation or, (iii) has a normal life inherently shorter than the warranty periods specified in Paragraph B, or (iv) is not properly stored, installed, used, maintained or repaired, or, (v) has been subjected to any other kind of misuse or detrimental exposure, or has been involved in an accident.*

*E. The preceding paragraphs set forth the exclusive remedies for claims (except as to title) based upon defects in or nonconformity of the Equipment, whether the claim is in contract, warranty, tort (including negligence), strict liability or otherwise, and however instituted. Upon the expiration of the warranty period, all such liability shall terminate. The foregoing warranties are exclusive and in lieu of all other warranties, whether oral, written, expressed, implied or statutory. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT SHALL THE SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAMAGES.*

*This warranty applies only within the United States.*
*1-800-528-7711 (outside U.S.A., 804-528-7711)*

*ECX-362R*
*6/90 Printed in U.S.A.*

## *EMERGENCY NUMBERS*

***Police***

***State Police***

***Fire***

***Poison Control***

***Ambulance***

***Life Saving and Rescue Squad***

**Ericsson GE Mobile Communications Inc.**
Mountain View Road • Lynchburg, Virginia 24502

*Printed in U.S.A.*