Operator's Manual

EDACS 300P
System/Scan Portable
Radio

ComNet Ericsson
CRITICAL RADIO SYSTEMS

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NOTICE!

SAFETY TRAINING INFORMATION

Your Com-Net Ericsson radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only" meaning it must be used only during the course of employment by individuals aware of the hazards and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only." In addition, your Com-Net Ericsson radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

- American National Standards Institute (C95.1 – 1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

- American National Standards Institute (C95.3 – 1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave.

CAUTION

To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio.

- DO NOT transmit for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the "TX" light appears in the display. You can cause the radio to transmit by pressing the "PTT" button.

- ALWAYS use Com-Net Ericsson authorized accessories (antennas, batteries, belt clips, speaker/mics, etc). Use of unauthorized accessories can cause the FCC RF exposure compliance requirements to be exceeded.

- ALWAYS keep the antenna at least 1 cm (0.4 inches) away from the body when transmitting to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your

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transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of a RF exposure, and what to do to assure that this radio operates within the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your Com-Net Ericsson radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

OPERATING RULES AND REGULATIONS

Two-way FM radio systems must be operated in accordance with the rules and regulations of the Federal Communications Commission (FCC). As an operator of two-way radio equipment, you must be thoroughly familiar with the rules that apply to your particular type of radio operation. Following these rules will help eliminate confusion and will assure the most efficient use of existing radio channels. This will provide a smooth operating radio network.

When using the 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 and/or observe the absence of the "**BSY**" display to make sure that the line is clear before sending any 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.

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

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

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

OPERATING TIPS

The following conditions tend to reduce the effective range of two-way radios and should be avoided whenever possible.

- • Operating the radio in low terrain areas or while under power lines or bridges.

- Operating the radio inside of a vehicle or inside metal or steel framed building unless using an outside antenna.

USER INTERFACE

This manual describes the basic functions and operation of the EDACS 300P System/Scan portable radio. For more detailed information about the features and operation, refer to the appropriate EDACS 300P Maintenance Manual or contact your System Administrator.
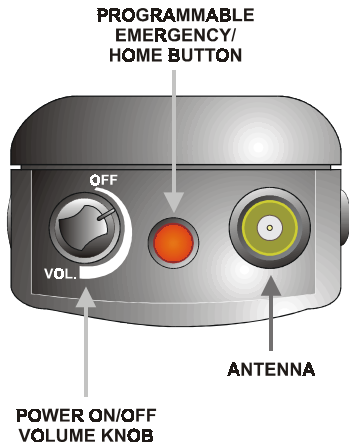
Figure 1. EDACS 300P Top View

Figure 2. EDACS 300P System Model

POWER (ON/OFF) VOLUME

ANTENNA

EDACS 300P

PUSH TO TALK (PTT) BUTTON

UDC CONNECTOR

SELECT SYSTEM/ GROUP/ CHANNEL

DISPLAY

CLEAR/ MONITOR/ SHIFT

SPECIAL CALLS

SCAN ON/OFF

FUTURE EXPANSION

TX NOSV
BSY SCN
BT SPC1

SYS   GRP

C/M

SPC   SCN

Figure 3. EDACS 300P Scan Model
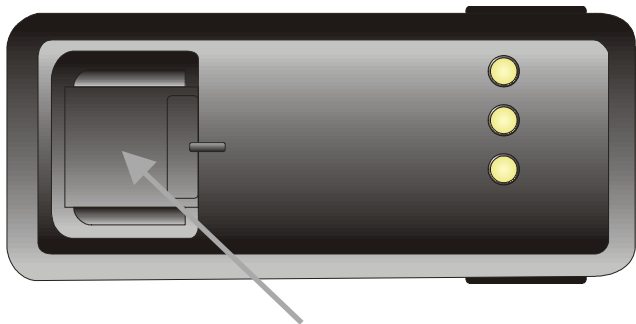
BELT CLIP

Figure 4. EDACS 300P Belt Clip Location

BASIC OPERATION

Locking/Unlocking Keypad (System Model)

1. Press the **C/M** key.
2. Press and release the **LOCK** key.

Selecting System

1. Press and release the **C/M** key, then use the ▲ and ▼ keys to select the desired system.
2. The SYS field displays the current System selected.

Selecting Group/Channel

1. Press the ▲ and ▼ keys to ramp to the desired group/channel.

Enabling/Disabling Scan

1. Press and release the **SCN** key to toggle Scan ON/OFF. "**SCN**" is displayed when Scan is enabled.

Modifying Scan List

1. Select the desired Group/Channel to be added/deleted. If the Group/Channel is currently in the Scan list, "**S**" is displayed.
2. Press the **C/M** key.
3. Press and release the **SCN** key.
4. If the selected Group/Channel was not in Scan list, it will be added. If the selected Group/Channel was in Scan list, it will be deleted.

Home/Emergency Key Definition

Pressing the red Home/Emergency button will perform one of the four operations below, depending upon how the radio was programmed.

1. The radio will switch to the programmed home System and/or Group, and send an emergency transmission.
2. The radio will send an emergency transmission on the System/Group shown in the display.

3. The radio will switch to the home System and/or Group.
4. The button is not active.

Declaring Emergency

1. Press and hold the red Emergency/Home button. (The length of time necessary to hold the Emergency button is programmable. Check with the System Administrator).
2. If programmed, an "**E**" is displayed in the SYS field and/or an alert tone sounds.
3. Press the PTT button to transmit your message.
4. Release the PTT button when the transmission is complete.

TRUNKED MODE OPERATION

IMPORTANT!

For optimum communication, hold the radio approximately three inches from your mouth and speak into the microphone at a normal voice level.

Transmitting a Call

Group Call

1. Select the desired System and Group.

2. Ensure that no one is transmitting on the selected Group by observing the display for absence of the "**BSY**" icon.

3. Press and hold the PTT button.

4. When the "**TX**" icon is displayed, speak into the microphone.

5. Release the PTT button when the transmission is complete. Wait for reply.

6. When the call is complete, press the **C/M** key to disconnect and end the call.

Individual (LID) Call

1. Press the **SPC** key. The "**SPC**" icon will be displayed.

2. The SYS field displays "**SP**". The GRP field displays the last accessed special call number from the pre-programmed list (**SP 1**, **SP 2**, etc.).

3. Scan Model: Press the ▲ or ▼ keys to scroll through the pre-programmed special call list until the desired number is displayed (**SP 1**, **SP 2**, etc.).
   System Model: Press the ▲ or ▼ keys to scroll through the special call list until the desired pre-programmed number is displayed (**SP 1**, **SP 2**, etc.); **or**
   Enter the LID number of the radio to be called. (To recall the last individual (LID) number entered, press the **C/M** key then press the **#/RCL** key.)

4. Press and hold the PTT button to initiate call.

5. When the "**TX**" icon is displayed, speak into the microphone.

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6. Release the PTT button when the transmission is complete. Wait for reply.

7. When the call is complete, double click the **C/M** key to disconnect and exit Special Call mode.

Phone Call

1. Press the **SPC** key. The "**SPC**" icon will be displayed.

2. The SYS field will display "**SP**". The GRP field will display the last accessed special call number (**1**, **2**, etc.) from the pre-programmed list.

3. <u>Scan Model</u>: Press the ▲ or ▼ keys to scroll through the special call list until the desired pre-programmed number is displayed.

   <u>System Model</u>: Press the ▲ or ▼ keys to scroll through the special call list until the desired pre-programmed number is displayed (**SP 1**, **SP 2**, etc.); **or**
   Enter the telephone number to be called. Complete the phone number entry by pressing the * key.
   (To recall the last phone number entered, press the **C/M** key, the **#/RCL** key, and then the ***** key.)

4. Press and release PTT button to initiate call.

5. The "**BSY**" icon is displayed and DTMF tones are sent.

6. When the receiving party answers the call, press and hold the PTT button and speak into microphone.

7. Release the PTT button when the transmission is complete. Wait for reply.

8. When the call is complete, press the **C/M** key twice to disconnect and exit Special Call mode.

Receiving a Call

1. Turn the radio on and select the desired System and Group; **or**
   Select the desired System and then turn Scan ON (if the desired Group is in the Scan List).

2. The radio is now ready to receive calls.

3. When a call is received, the radio unsquelches on the assigned channel and the "**BSY**" icon is displayed. Depending upon the programming of the radio, a tone may sound, indicating the type of call received.

4. Group Call: If programmed, the Group ID of the caller will be displayed in the SYS and GRP fields.

   Individual (LID) Call: If programmed, the LID number of the caller (or just "**id**") will be displayed in the SYS and GRP fields.

   Phone Call: "**ph**" or the last four digits of the phone number will be displayed in the GRP field.

   Emergency Call: "**E**" and the System number will blink alternately in the SYS field.

5. Adjust the volume as necessary.

6. Respond by pressing the PTT button and speaking into the microphone.

7. Press the **C/M** key twice to disconnect and end the call.

Storing/Recalling Numbers (System Model)

NOTE

Manually stored numbers are stored to the EDACS Scratch Pad. The scratch pad options are programmed into the radio and the phone number/LID number capability must be enabled for the following features to function.

Storing Individual (LID) and Phone Numbers

1. Press the **SPC** key.
2. The "**SPC**" icon will be displayed.
3. The SYS field will display "**SP**". The GRP field will display the last accessed special call number from the pre-programmed list.
4. Enter the LID number or phone number to be stored. (To recall the last number manually entered from the keypad, press the **C/M** key and then press the **#/RCL** key.) Up to four digits will be displayed (the last four digits of a telephone number).
5. Complete the entry by pressing the **#** key for an individual (LID) number or the ***** key for a phone number.
6. Enter a digit from 0 to 9 to select a storage location.
7. Press the **C/M** key and then press the ***/STO** key to complete the storage procedure.

8. Press the **C/M** key twice to exit Special Call mode.

Recalling Stored Individual (LID) and Phone Numbers

NOTE

The special call mode must be exited to initiate the recall procedure

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1. Press the **#** key for an individual (LID) call or the ***** key for a phone call.
2. Enter the desired storage location number (0-9).
3. Press the **C/M** key and then press the **#/RCL** key. Up to four digits of the number (the last four digits of a telephone number) will be displayed in the GRP field.
4. Individual (LID) Call: Press and hold the PTT button to initiate the call. When signaling is complete, the "**TX**" and "**BSY**" icons are displayed and the Call Originate tone sounds. While still depressing the PTT button, speak into the microphone.

   Phone Call: Press and release the PTT button to initiate the call. When signaling is complete, the "**BSY**" icon is displayed and DTMF tones are sent. When the receiving party answers the call, press and hold the PTT button and speak into microphone.
5. Release the PTT button when the transmission is complete. Wait for reply.

6. When the call is complete, press the **C/M** key twice to disconnect and exit Special Call mode.

CONVENTIONAL OPERATION

IMPORTANT!

For optimum communication, hold the radio approximately three inches from your mouth and speak into the microphone at a normal voice level.

Transmitting a Call

1. Turn the radio on and select the desired System and Channel.
2. Ensure that no one is transmitting on the selected Channel by pressing the **C/M** key twice (hold down the second press) to monitor the channel and/or observe the display for the absence of the "**BSY**" icon.
3. Press and hold the PTT button and speak into the microphone.
4. Release the PTT button when the transmission is complete. Wait for reply.
5. Press the C/M key twice to disconnect.

Receiving a Call

1. Turn the radio on and select the desired System and Channel; **or**

Select the desired System and then turn Scan ON (if the desired Channel is in the Scan List).

2. The radio is now ready to receive calls.

3. Press the **C/M** key twice (hold down the second press) to disable squelch and monitor the channel. Adjust volume to desired level.

4. When the radio receives a call, the radio is unsquelched and the message is heard.

ERROR MESSAGES

E3   If at anytime the Synthesizer is unable to load and lock on the channel properly, an "**E3**" message will be displayed in the SYS field and the GRP field will be blanked. If the "**E3**" message is displayed on all Systems, the radio has failed or has not been programmed properly. The radio's buttons and keys will still operate with an "**E3**" message displayed.

E9   An "**E9**" message indicates that the Personality has not been programmed into the radio.

PROGRAMMABLE ALERT TONES

Name	Tone	Description
Power-Up (B)	One	Radio has passed self-test upon power-up
Call Originate (T)	One short	OK to talk; radio has acquired channel
Call Received (T)	One (Group) One high, one low (Indiv.)	Call has been received
Call Queued (B)	One short high-pitched	Call has been placed in queue for processing
Autokey (B)	one long beep	Queued call received channel assignment
System Busy (T)	Three short medium-pitched	System busy, all channels busy, or receiving party engaged in call
Out of Range/ System In-operative (T)	one low-pitched	Radio out of range of repeater, or radio inoperative
Call Denied (B)	one low-pitched	Radio is not authorized on the system or group
Carrier Control Timer (B)	Pulsed	PTT pressed for pre-programmed length of time. Release and re-key PTT.
Low Battery (B)	one low-pitched; 130 sec intervals	Low battery; needs charging

(T) = trunked mode only   (B) = both trunked and conventional modes

CHANGING THE BATTERY PACK

When the "**BT**" icon is displayed, or the display remains blank, the battery is low and needs charging.

Removing the Battery Pack

Make sure the power to the radio is turned OFF.

1.   Locate the latch on the bottom of the radio.
2.   Press and hold the latch down, toward the back of the radio, while sliding the battery towards the bottom of the radio with your other hand.
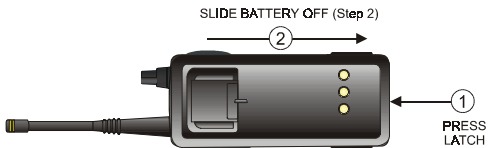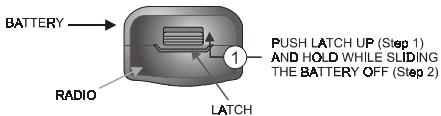3.   Remove the battery pack from the radio.

Figure 5A & 5B. (5A) Belt Clip/D-Clip Location and (5B) Removing the Battery Pack

Attaching the Battery Pack

Make sure the power to the radio is turned OFF.

1. Align the tabs on the back of the radio with the slots on the battery pack.

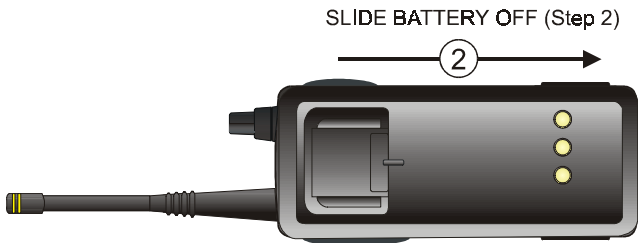2. Slide the battery pack towards the top of the radio until it clicks into place.

SLIDE BATTERY OFF (Step 2)

Figure 6. Re-Installing the Battery Pack

WARRANTY

A. Com-Net Ericsson Critical Radio Systems, 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 hereunder 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 charge during the warranty period only for the Equipment covered under Paragraph B.3. To be eligible for no-charge labor, service must be performed by an Authorized Service Center (ASC) or other Servicer 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 Center or other approved Servicer's place of business will include a charge for transportation.

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.

NICKEL-CADMIUM BATTERY WARRANTY

A. Com-Net Ericsson Critical Radio Systems, Inc. (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that nickel-cadmium batteries sup-plied 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 Service Center (ASC). To obtain the name and address of an ASC, 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 PUR-POSE SHALL APPLY. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAM-

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