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## **APPENDIX E**

# **OPERATOR'S MANUAL**

MM101027V2

## *Operator's Manual*

# Panther 300P Mobile Radio



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CRITICAL RADIO SYSTEMS



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## **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.



**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 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.

## **SAFE PRACTICE INFORMATION**

The operator of any land mobile radio should be aware of certain hazards common to the operation of radio transmitters. **A list of several possible hazards is given:**

1. **Explosive Atmospheres** - Areas with potentially explosive atmosphere are often, but not always, clearly marked. These may be fueling areas, such as gas stations, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

**Turn OFF your radio when in any area with a potentially explosive atmosphere. It is rare, but not impossible that the radio or its accessories could generate sparks.**

2. **Electronics Systems** - RF energy from your portable radio may affect some electronic equipment. Most modern electronic equipment in cars, hospitals, homes, etc. are shielded from RF energy. However, in areas that instruct you to turn off two-way radio equipment, always observe the rules. **If in doubt, turn it off.**
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:

- 1) Carry the blasting caps in a closed metal box with a soft lining.
  - 2) Leave the radio **OFF** whenever the blasting caps are being put into or removed from the vehicle.
4. **Radio Frequency Energy** - Do not use a radio with a damaged or missing antenna. A minor burn may result if a damaged antenna comes into contact with the skin. Replace a damaged antenna immediately. A missing antenna could damage your radio. Use only the supplied or approved antenna. Unauthorized antennas, modifications, or attachments could damage the radio unit and may violate FCC regulations.



5. Always turn off your portable radio before boarding any aircraft. Use it on the ground only with crew permission. Do not use it in the air.
6. **Safe Driving Recommendations** - (Recommended by AAA)
  - Read the literature on the safe operation of the radio.
  - Keep both hands on the steering wheel and the radio secured whenever the vehicle is in motion.
  - Place calls only when vehicle is stopped.
  - When talking from a moving vehicle is unavoidable, drive in the slower lane. Keep conversations brief.
  - If a conversation requires taking notes or complex thought, stop the vehicle in a safe place and continue the call.
  - Whenever using a radio, exercise caution.

## **OPERATING RULES AND REGULATIONS**

Two-way FM radio systems must be operated in accordance with the rules and regulations of the local, regional, or national government.

In the United States, the PANTHER 300P radio 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 helps eliminate confusion, assures the most efficient use of the existing radio channels, and results in a smoothly functioning radio network. When using your two-way radio, remember these rules:

1. It is a violation of FCC rules to interrupt any distress or emergency message. As your radio operates in much the same way as a telephone "**party line**", always listen to make sure that the channel is clear before transmitting. Emergency calls have priority over all other messages. If someone is sending an emergency message - such as reporting a fire or asking for help in an accident - **KEEP OFF THE AIR!**

2. The use of profane or obscene language is prohibited by Federal law.
3. It is against the law to send false call letters or false distress or emergency messages. The FCC requires that you keep conversations brief and confine them to business. To save time, use coded messages whenever possible.
4. Using your radio to send personal messages (except in an emergency) is a violation of FCC rules. You may send only those messages that are essential for the operation of your business.
5. It is against Federal law to repeat or otherwise make known anything you overhear on your radio. Conversations between others sharing your channel must be regarded as confidential.
6. The FCC requires that you identify yourself at certain specific times by means of your call letters. Refer to the rules that apply to your particular type of operation for the proper procedure.
7. No changes or adjustments shall be made to the equipment except by an authorized or certified electronic technician.

**IMPORTANT**

Under U.S. law, operation of an unlicensed radio transmitter within the jurisdiction of the United States may be punishable by a fine of up to \$10,000, imprisonment for up to two years, or both.

## OPERATING TIPS

Antenna location and condition is important when operating a portable radio. Operating the radio in low areas or terrain, under power lines or bridges, inside of a vehicle or in a metal or steel framed building can severely reduce the range of the unit. Mountains and buildings can also reduce the range of the unit.

In areas where transmission or reception is poor, some improvement may be obtained by ensuring that the antenna is vertical. Moving a few yards in another direction or moving to a higher elevation may also improve communications. Vehicular operation can be aided with the use of an externally mounted antenna.

Battery condition is another important factor in the trouble free operation of a portable radio. Always use properly charge batteries.

For efficient radio operation, hold the front of the portable radio approximately three inches from your mouth and speak into the microphone at a normal voice level. Keep the antenna in a vertical position when receiving or transmitting a message. Do not hold the antenna when receiving a message and, especially, do **not** hold when transmitting a message.



## **INTRODUCTION**

This manual describes the operation for the Com-Net Ericsson Panther 300P Mobile radio. The Panther 300P radio is a high performance FM mobile radio providing reliable two-way communication in a Conventional radio system.

The Panther 300P radio can be programmed with up to 6 channels. It includes a Tx/Busy indicator LED, a Monitor/Clear button, one programmable option button, and a PTT switch.

The Panther 300P radio can be programmed to operate with any of the following Conventional radio system platforms:

- ❑ Channel Guard (with or without STE)
- ❑ Digital Channel Guard
- ❑ Type 99

The Panther 300P is a versatile radio designed to meet most Conventional applications. The 300P radio will be available in numerous splits in the VHF and UHF bands. The 300P radio can be purchased with a maximum output power of 5 Watts for VHF models and 4 Watts for UHF models with a turndown to 1 Watt. The radio can be programmed for low or high power on a per channel basis. The following table provides a complete list of the 300P radios model numbers.

**Table 1 – Panther 300P Radio Model Numbers**

<b>Radio Model #</b>	<b>Description</b>
KRD 103 153/1	136-155 MHz, 5, 1 Watt
KRD 103 153/2	150-174 MHz, 5, 1 Watt
KRD 103 153/3	450-488 MHz, 4, 1 Watt
KRD 103 153/4	470-512 MHz, 4, 1 Watt

## CONTROLS AND INDICATORS

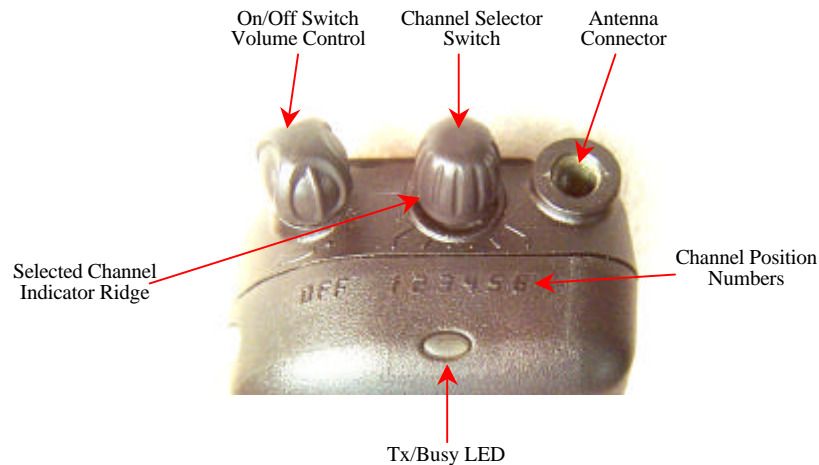
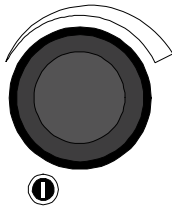


Figure 1 – Panther 300P Radio Top View

## CONTROLS

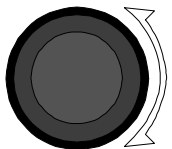
All the controls for the Panther 300P mobile radio are located on the front of the control unit and described below:

### ON/OFF Volume Knob



This knob powers the radio ON/OFF and controls the volume level of the received audio at the speaker. Rotate the knob counterclockwise to turn the volume down. Rotate the knob clockwise to turn the volume up. Rotate the knob counterclockwise until it clicks and then stops, to turn the radio OFF. When the knob is in the OFF position, rotate the knob clockwise until the knob clicks to turn the radio ON.

### Channel Selector Knob



This 6 position rotary knob is used to select the desired channel from a preprogrammed list of channels. Rotate the knob clockwise to increment to the next channel in the list. Rotate the knob counterclockwise to decrement to the next channel in the list.



Option 1  
Button  
Monitor/Clear  
Button  
Push To Talk  
(PTT Button)

### **Option 1 Button**

This button can be programmed to control one of the radio's programmable option functions. The default function is "Disabled".

### **Monitor/Clear Button**

This button is assigned the Monitor/Clear function. The function for this button is not programmable.


### **PTT Button**

Push To Talk button. Press to transmit a message. Release to hear a message.

## **OPTION BUTTON FUNCTIONS**

The following functions can be assigned to the Option 1 button.

---

 *In order to prevent inadvertent operation, the Option Buttons must be pressed for at least one second before they execute their programmed function.*

---

### **Disabled**

No function is assigned to the option button. When pressed, the radio will give the Denied alert tone. This is the default for Option Button 1.

### **High/Low Power**

The High/Low Power function controls the transmitter power. If "On", the radio uses its longer range high power setting. If "Off", the radio uses its battery life conserving low power setting. This is a toggle function. If the radio is currently set for high power, pressing the option button will change it to low power. If the radio is currently set for low power, pressing the option button will change the radio to high power.

There will be one keypress beep when going from Low Power to High Power. There will be two keypress beeps when going from High Power to Low Power.

When the channel is changed or the radio is turned off and then on, the power setting of the radio will be set according to the selected channel's

programmed power setting. Hence, the power setting from the option button will be overridden by the power setting of the new channel when the channel is changed.

### **Monitor/Clear**

The Monitor/Clear function monitors the channel for activity. While pressed, noise squelch is disabled, Channel Guard is disabled and Type 99 is disabled.

If the channel is not busy, squelch noise will be heard. If the channel is busy, the activity on the channel will be heard.

When the option button is released, Type 99 will be re-enabled, Channel Guard will be re-enabled, and noise squelch will be re-enabled.

Pressing the Monitor/Clear option button can also be used to clear the Type 99 Decoder state from Monitor mode to Selective mode after a successful Type 99 decode.

This function is assigned to the Panther 300P's lower Option button. It can not be changed.

### **Local/Distant Squelch**

The Local/Distant Squelch function overrides the channel's programmed local/distant squelch setting. This is a toggle function. If the radio is currently using the tighter Local squelch, then pressing the Local/Distant Squelch button will change the squelch setting to the looser Distant setting. If the radio is currently using the Distant settings, then pressing the option Local/Distant button will change the squelch settings to the Local settings.

There will be one keypress beep when going from Distant to Local and two keypress beeps when going from Local to Distant.

### **Type 99 On/Off**

The Type 99 On/Off function controls the state of the Type 99 Decoder. When "On", the radio is put into Selective mode. The Type 99 function will mute receive audio until it receives a valid Type 99 call.

When "Off", the radio is always in Monitor mode.

The Type 99 On/Off function is a toggle function. There will be one keypress beep when the function goes from "Off" to "On" and two keypress beeps when the function goes from "On" to "Off".

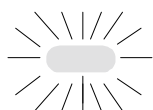
The Type 99 On/Off function requires a Type 99 decode be programmed on the selected channel. If this is not the case, the Type 99 On/Off function will just do a Denied Alert Tone.

When the channel is changed or when the radio is powered up, the Type 99 decoder will change to the programmed Selective Call or Monitor Mode default state.



## RADIO INDICATORS

### Busy / Tx Indicator



This indicator is in front of the channel selector switch on the top of the radio. It is a three color LED. The LED can be Red, Green, or Orange. The LED can also be on steady or flashing depending upon the radio state.

The LED is most frequently used to indicate when the radio is transmitting and when the channel is busy. When the radio is transmitting, the red LED turns on steady. When the radio channel is in use or "busy", the green LED turns on steady.

Note that the steady green LED does not necessarily indicate a received call if the channel has Channel Guard or Type 99 signaling. The steady green LED only means that the channel is in use.

A flashing green LED means the radio is on a Type 99 channel that has decoded a Type 99 call. If it is flashing more off than on (950 milliseconds off, 50 milliseconds on) then there is no carrier present on the displayed channel. If the green LED is flashing more on than off (950 milliseconds on, 50 milliseconds off), then there is a carrier present on the displayed channel.

A flashing red LED signifies a low battery condition. The radio battery needs to be replaced or the radio needs to be recharged.

An orange LED usually indicates an error condition or radio failure.

Some of these indicators can be combined. For example, a low battery condition on a radio currently in Type 99 Monitor mode will have flash both red and green LED colors.

## **ALERT TONES**

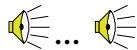
The PANTHER 300P radio generates a number of unique audible alert tones or “beeps” to indicate various operating conditions. The alert tone feature can be enabled or disabled through PC Programming. All of the PANTHER 300P alert tones are described in the following sections:

### **Power Up**



On power up, the radio performs a diagnostic test and then sounds three short tones to indicate the radio has passed the diagnostic test and is ready for operation.

### **Carrier Control Timer**

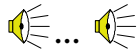


The Carrier Control Timer (CCT) is a programmable timer that limits the amount of time the radio will allow the user to continuously transmit. Once the time period has expired, the radio ends the transmission and sounds a warning tone. The warning tone will continue until the user releases the PTT button on the microphone.

### **Denied Tone**

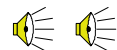
A short beep that sounds when an action produces an error or has no meaning. For example, pressing the Type 99 On/Off option button when the displayed channel does not have a Type 99 call defined.

### **Failed Tone**



The Failed tone is a continuous low frequency tone that is sounded when the radio fails its power-up self test or when another fatal error occurs. The tone will sound indefinitely until the radio is turned off.

### **Option Button Keypress That Disables**



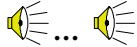
An option keypress that disables a function will sound two short beeps.

### **Option Button Keypress That Enables**



An option keypress that enables a function will sound one short beep.

### **Transmitter Disabled**



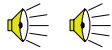
The Transmitter Disable Tone will sound when the PTT is pressed but transmit operation is locked out by the Busy Lockout Options. The warning tone will continue until the user releases the PTT button on the microphone. This tone will also sound when the PTT is pressed on a receive only channel.

### **Type 99 Individual Call**



When the radio receives an individual call, the radio will sound one (1) short beep to alert the user of an individual call.

### **Type 99 Group Call**



When the radio receives a group call, the radio will sound two (2) short beeps to indicate the radio has received a group call.

### **Type 99 Super Group/Quick Call**



When the radio receives a CNE super group or a Motorola Quick Call, the radio will sound three (3) short beeps to indicate the radio has received a super group or Quick Call.

### **Synthesizer Unlock**



If the synthesizer is unable to load and lock on the channel, an alert tone will sound until the synthesizer locks on the channel.

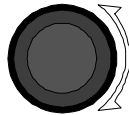
## BASIC OPERATION

### TURNING THE RADIO ON



From the OFF position, rotate the ON/OFF Volume knob clockwise until the knob clicks. The radio performs a diagnostic test and then sounds three short tones to indicate the radio has passed the diagnostic test and is ready for operation. The radio will be on the channel selected by the Frequency Select Switch.

### SELECTING OR CHANGING CHANNELS



Rotate the Channel Selector Knob clockwise or counterclockwise until the raised rib on the channel select switch aligns with the desired channel number on the radio's body.

### TRANSMITTING A BASIC CALL



1. Make sure the radio is ON. Select the desired system and channel as described in the previous sections.
2. Observe the TX/RX indicator for any activity on the channel..
3. Press and hold the **Monitor/Clear** button for at least 1 second to monitor the channel for activity. Noise will be heard if there is no activity on the channel. This will also help in setting the volume level to the desired level.
4. Holding the radio approximately 2 inches from your mouth, press the PTT button on the side of the microphone and speak in the microphone.



*Always speak in a normal tone of voice. Hold the radio in your hand and approximately two (2) inches from your mouth. Shouting will degrade your transmission, so do not speak any louder than normal.*

5. When you have finished speaking, release the PTT button and wait for a reply.

## **CHANNEL GUARD**

Channel Guard is a method of reducing "channel chatter" by equipping receivers with a device which only allows calls with the correct signaling to be heard by the user. Channel Guard is defined in the radio personality.

The radio will always transmit with Channel Guard unless the channel is programmed without Channel Guard.

### **Channel Guard Monitor Function**



- 1) Observe the TX/RX indicator for any activity on the channel.
- 2) Press the Monitor/Clear option button for at least 1 second.

## SELECTIVE SIGNALING

Selective signaling is a method in conventional radio systems for controlling the muting and unmuting of the receive audio. This allows the radio operator or dispatcher to selectively call an individual radio or group of radios. The PANTHER 300P radio supports selective signaling in Type 99.

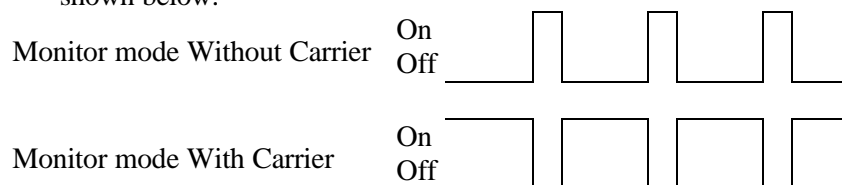
- ❑ In a selective signaling environment, the PANTHER 300P radio operates in one of two states, Monitor mode or Selective Call mode. In the monitor mode, the decoder's muting of the receive audio amp is turned OFF and the user hears all calls on the channel.

In the selective mode, decoder is turned ON and only calls intended for the user will be heard.

- ❑ Selective signaling operates with or without Channel Guard.
- ❑ If Channel Guard is enabled, the radio can be programmed with an "And" or an "Or" option. If the "And" option is programmed, the user will only hear calls with the correct selective signaling and correct Channel Guard.

If the "Or" option is programmed, the user will hear calls with the correct selective signaling as well as calls with the correct Channel Guard. Calls with the correct Channel Guard do not have to have the correct selective signaling to be heard.

- ❑ When the radio is in the selective mode and the radio receives a selective call, the radio switches to the monitor mode and the Tx/Busy LED flashes green. The Tx/Busy LED always flashes green when the radio is in the monitor mode. The Tx/Busy LED is also used to indicate a carrier on the channel. This combination is shown below.



## TYPE 99 OPERATION

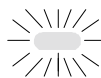
Type 99 is Com-Net Ericsson's proprietary method for in-band, two-tone sequential signaling. It is a conventional signaling protocol used to control the muting and unmuting of a radio. This signaling is commonly used for selective calling of individual units or groups of units in a conventional system. Type 99 is typically used in paging operations, where a dispatcher is able to select which radio or radios are to be selectively called.

If Type 99 has been setup, the radio can decode individual, group and supergroup paging calls. When the radio decodes an appropriate Type 99 decode sequence, an alert sounds, the Tx/Busy LED flashes green and the radio enters the monitor mode.

### Receiving An Individual, Group, or Supergroup Call



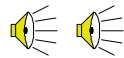
1. Select the proper system and channel as described in the Basic Operation on page 17.
2. When the radio receives a selective call:



- The green TX/RX indicator will turn ON to indicate the radio is receiving a carrier.



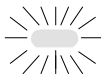
- For an individual call, a single ½ second tone will sound to indicate the call is an individual call.



For a group call, two short tones will sound to indicate the call is a group call.



For a supergroup call, three short tones will sound to indicate the call is a supergroup call.



- The radio switches to the monitor mode and the Tx/Busy LED flashes green.

3. To respond to the call, hold the radio approximately 2 inches from your mouth, press the PTT button on the side of the microphone and speak in the microphone.

## **Resetting Type 99 After A Call**

When a Type 99 call is decoded, the radio enters Monitor mode. The Type 99 decoder will now operate in the background. If the radio is called again, the Type 99 decoder will decode it and sound the call's alert tone. But the decoder will no longer mute the audio. All traffic on the channel will now be heard. (If the channel has Channel Guard, only the traffic with the radio's Channel Guard tone will be heard.)

In order for the Type 99 decoder to mute the audio, it must be "Reset". There are several methods of doing this.

1. Press the Monitor/Clear button.
2. Press the Type 99 On/Off button.
3. Allow an optional "Auto-Reset" timer to reset the Type 99 decoder. This is a programmable option. The time is also programmable between twelve seconds and three minutes.

## ***PROGRAMMABLE PTT FUNCTIONS***

### **Channel Busy Lockout**

The radio may be programmed to deny the use of the transmitter when the channel is busy. This keeps another radio from interrupting a message that is in progress. This is called Channel Busy Lockout.

If the PTT switch is pressed while the Busy/Tx LED is on, the radio will sound an alert tone until the PTT is released.

### **Channel Guard Channel Busy Lockout**

The radio may be programmed to deny the use of the transmitter when the channel is busy with another Channel Guard tone. The radio will transmit when the channel is busy with the radio's Channel Guard tone. This is called Channel Guard Channel Busy Lockout.

If the PTT switch is pressed while the Busy/Tx LED is on and the radio is muted because of an incorrect Channel Guard tone, the radio will sound an alert tone until the PTT is released.

This option minimizes interference on repeater systems but also allows a radio to transmit during the repeater dropout timer.



## **Type 99 Disable After PTT**

The radio can be programmed to automatically disable the Type 99 decoder after a transmission. This is to allow for a reply to the transmission.

The Type 99 decoder may then be reset by pressing the Monitor/Clear button or may be programmed for an Auto-Reset time.

## ***BATTERY OPERATION***

### **Removing The Battery**

(Need graphic showing battery removal !)

1. Turn off the radio.
2. Hold the radio with the rear facing up and the bottom of the radio facing away from you.
3. Press the latch at the bottom of the radio toward the top of the radio and rotate the battery outward, away from the radio body.

### **Attaching The Battery**

(Need graphic showing battery attachment!)

1. Verify that the radio power switch is off.
2. Hold the radio body in one hand with the rear facing up and the bottom facing away from you. Hold the battery such that the rear of the battery is facing up and the latch is facing toward the rear of the radio with the other hand.
3. Insert the battery into the rear of the radio such that the tongue on the front of the battery engages the groove in the front of the radio.
4. Rotate the battery down into the radio body. The latch at the rear of the battery should engage with a distinct click.

5. Verify the battery is securely latched to the radio.
6. Turn on the radio.

### **Low Battery Detection And Operation**

The Panther 300P radio constantly monitors the battery's state of charge. When the battery capacity is getting low, the radio will sound a Low Battery Alert Tone. The Tx/Busy LED will begin flashing red. When this occurs, the user should recharge the battery.

The radio may be programmed to sound just one low battery alert tone when a low battery is sensed or may be programmed to sound the low battery alert tone once a minute while the battery is low.

The Tx/Busy LED will always be flashing red when there is a low battery. This low battery indication will be mixed with the other uses of the LED. For example, a radio with its Type 99 decoder in Monitor mode will flash red and then flash green. An exception to this is while transmitting. The Tx/Busy LED will be on steady red whenever the transmitter is operating.

The Panther 300P also monitors the battery voltage while transmitting. If the battery level drops below the level needed to operate the transmitter, the radio will stop transmitting, display the flashing red low battery warning on the Tx/Busy LED, and sound an alert tone until the PTT switch is released.

The Panther 300P is not capable of turning itself off when the battery level falls below that required for the radio to operate. As a result, it is possible to excessively discharge the battery. "Forgetting to turn the radio off" and deeply discharging the battery will reduce battery capacity and battery life.

### **Battery Error**

If the radio senses a problem with the battery, it will display a "Battery Error" warning. The Tx/Busy LED will flash orange unless the radio is transmitting. There will be a "Battery Error" alert tone every ten seconds while the Battery Error exists.

The Tx/Busy LED's flashing orange display will be incorporated with the other uses of the Tx/Busy LED. For example, when the radio's Type 99 decoder is in Monitor mode, the Tx/Busy LED will be flash orange and then flash green.

The Battery Error condition is best avoided by only using genuine Com-Net Ericsson approved batteries.

### **Charge The Battery Before Using**

Insert the radio into the slot on the charger and ensure that the ON/OFF/VOLUME control is in the OFF position. Connect charger to a 120 VAC outlet. (An optional 230 VAC charger may be needed for international applications.) The battery is fully charged when the charger LED indicator changes from red to green.

### **Recharging The Battery**

Recharge the battery when the radio battery indicator shows "Low Battery". When charging a battery pack that is attached to a radio, always turn the radio OFF to ensure a full charge. For specific instructions, refer the applicable charger Operator's Manual. Charging in non-Com-Net Ericsson equipment may lead to battery damage and void the battery warranty.

### **Conditioning The Battery**

Batteries which have been stored (charged or discharged) will generally not be capable of full capacity until the batteries have been fully cycled two or three times. (Charging the battery in an Com-Net Ericsson charger and then discharging the battery pack with the radio until low battery is indicated, is considered one cycle.)

## **Battery Care & Maintenance**

- Your charger is intended for indoor use only. Keep the charger and/or wall cube dry. **Do Not** use in or near water.
- **Never** let the battery contacts touch metal objects that could short-circuit the contacts. For example, keys or coins in your pocket.
- **Do Not** disassemble a battery.
- **Do Not** dispose of a battery in a fire.
- Use only the supplied or Com-Net Ericsson specified batteries and chargers.
- Turn the radio off when not in use. Overly discharging the battery will reduce battery capacity and battery life.
- Do not overcharge the battery. A battery should not be kept in a charger for over 24 hours. Overcharging batteries will reduce battery capacity and battery life.
- Periodically condition your battery for improved battery capacity and performance.

## **Battery Recycling**



The product that you have purchased contains a rechargeable, recyclable battery. At the end of its 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 in your area for recycling options or proper disposal. Call Toll Free 1-800-8- BATTERY or go to the Rechargeable Battery Recycling Corporation website [www.rbr.com](http://www.rbr.com) for additional information.