# Congratulations on selecting the XR150<sup>™</sup> from RCA Communications Systems - *The Most Trusted Name In Radio!*

RCA Communications System products are designed to perform flawlessly under the most demanding commercial conditions. Cutting edge design, professional grade materials and components, simple operation and superior assembly quality: RCA Communications Systems has it all, including our exclusive no-nonsense, two-year "Warranty Protection Program," one of the most comprehensive warranties in the communications industry.

To ensure you achieve maximum performance from your XR150<sup>™</sup> radio, please be sure to carefully read this manual.

#### MODELS COVERED IN THIS MANUAL:

• XR150™ Business Two-Way Radio

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## SAFETY AND GENERAL INFORMATION

Please observe the following general safety precautions during all phases of operation, service and repair of this equipment.

## **Prohibitions of Operating Radios:**

- Do not operate your radio in a location containing fuels, chemicals, explosive atmospheres and other flammable or explosive materials. In such location, only an approved Ex-protection radio is allowed for use, but any attempt to assemble and disassemble the radio is strictly prohibited.
- 2. Do not operate your radio near or in any blasting area.
- 3. Do not operate your radio near any medical or electronic equipment that is vulnerable to RF signals.
- 4. Do not operate your radio while driving.

5. Do not operate your radio in any other area where use of wireless communication equipment is completely prohibited.

# **Prohibitions of Charging Batteries:**

- 1. Do not charge or replace your battery in a location containing fuels, chemicals, explosive atmospheres and other flammable or explosive materials.
- Do not charge your battery if it is wet. Please dry it with a soft clean cloth prior to charging.
- 3. Do not charge your battery if it shows signs of deformation, leakage or overheating.
- 4. Do not charge your battery using an unauthorized charger.
- 5. Do not charge your battery in a location where strong radiation is present.

#### Instructions on Radio:

- 1. Please only use accessories approved by RCA Communications Systems.
- 2. Keep the radio at least 3 inches away from your mouth during radio transmission.
- 3. Do not use the radio if the antenna is damaged.
- 4. Do not keep your radio receiving at high volume for a long time.
- 5. For vehicles with an air bag, do not place your radio near the air bag deployment area.
- 6. Keep your radio and its accessories out-of-reach of children and pets.
- 7. Please operate your radio under the specified operating temperature.
- 8. Continuous transmission for a long time

- may lead to heat accumulation within the radio body; be sure to give the radio sufficient time and ventilation for cooling.
- 9. Do not disassemble, modify or repair your radio or its accessories without authorization.

### **Instructions on Batteries:**

- Accumulated dust on charging contacts may affect normal charging of the battery. Please use a clean dry cloth and wipe it on a regular basis.
- 2. It is recommended that you charge the battery between 41°F-104°F. Charging the battery outside this temperature range may cause battery life reduction or even battery leakage.
- 3. When charging a battery attached to a radio, turn off the radio to ensure a full charge.

- 4. Do not remove the battery or unplug the power cable during charging to ensure a smooth charging process.
- 5. Do not overcharge the battery because it may shorten the normal life of your battery.
- 6. Do not dispose of the battery in a fire.
- 7. Do not expose the battery to direct sunlight for long periods of time and do not place it close to any heating sources.
- 8. Do not transport or store the battery together with any metal objects to avoid short circuit of the battery.
- 9. Do not squeeze or pierce the battery, and do not remove its housing.
- 10. Do not dispose of your old battery in the garbage. Recycle and dispose of the battery according to your local regulations.

#### PRODUCT INSPECTION

Prior to unpacking the XR150<sup>™</sup> portable radio, please inspect the packaging for signs of damage and report any damage or missing components immediately to your RCA Communications Systems Sales and Service Outlet. Every XR150<sup>™</sup> portable radio comes with the following items:

| Item   | Qty.(PCS) |
|--|-----------|
| CH1501 - Desktop Rapid Charger                               | 1         |
| <b>B1517LI</b> - Li-Ion Battery (1650mAh)                    | 1         |
| <b>PS1501</b> - Power Supply                                 | 1         |
| BC150 - Belt Clip  | 1         |
| STR150 - Handy Carry Strap<br>(Easy way to carry your radio) | 1         |
| <b>ANH150U-3 450-470</b> - Antenna for UHF Models            | 1         |
| Instruction Manual   | 1         |



**Note:** Frequency band is marked on the label of antenna. If it doesn't appear on yours, please refer to the label on the radio unit for detailed frequency band information.

ST150

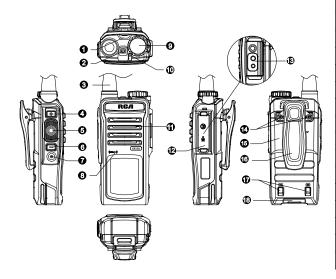
Handy Carry Strap

ANH150U-3 450-470

UHF 450-470MHz

3" Stubby Antenna

## RCA XR150™ Overview



- (1) Strap Hole
- (2) Power Switch
- (3) Antenna
- (4) Volume Adjustment Key UP [+]
- (5) PTT (Push-to-Talk) Key
- (6) Volume Adjustment Key DOWN [-]
- (7) SK (Side Key) (programmable)
- (8) Microphone
- (9) Channel Selector Knob
- (10) Channel / Status / Charge Indicator Light
- (11) Speaker
- (12) Accessory Jack Cover
- (13) Audio Accessory Jack
- (14) Screws for Belt Clip
- **(15)** Battery
- (16) Belt Clip
- (17) Battery Charging Terminals [-] & [+]
- (18) Battery Latch

## PTT (Push-to-Talk) Key

Press and hold down the PTT key to transmit, release it to receive.

# SK (Side Key)

Side Key is the programmable key to which your dealer can assign long and short press function. (See Glossary for definitions of long and short press.)

### **Channel Selector Knob**

Turn the knob to select a desired channel.

### Power Button / Radio On-Off

Press and hold power button until unit turns on. Press and hold button again until unit turns off. Power alert tones will be heard.

# **Accessory Jack**

The accessory jack can be used to connect a speaker mic, earpiece or headset mic.

## **BATTERY INFORMATION**

#### **Initial Use**

batteries are shipped from the New factory uncharged. Charge a new battery approximately 12 hours prior to initial use (applies to Ni-CD, Ni-MH and Li-Ion batteries charged with slow or rapid rate charger). NOTE: The Indicator Light will turn GREEN approximately one hour after battery is placed in a Rapid Rate Charger; however, it is strongly recommended the battery charge for 12 hours. This initializes it and allows for the best performance. Maximum battery capacity is normally achieved after two or three full charge / discharge cycles. If battery power runs low, recharge the battery. Batteries that are brand new or that have been stored for an extended period of time (several weeks), may require more time to fully charge.

# **Applicable Battery Packs**

To reduce the risk of injury, use only batteries specified by RCA Communications Systems.

#### Caution:

- 1. To avoid risk of personal injury, do not dispose of batteries in a fire.
- 2. Dispose of batteries according to local recycling regulations. Do not dispose as household waste.
- 3. Never attempt to disassemble the battery.

# **Battery Tips:**

- 1. When charging a battery, keep it at a temperature between 41°F ~ 104°F (5°C ~ 40°C) to ensure a full charge. Temperatures outside this range significantly reduce battery life.
- 2. Before charging a battery attached to a radio, turn the radio off to ensure a full charge. Never leave a radio on while in the

- charger, as it can damage both the battery and the radio; the charger is not a radio stand.
- 3. Do not cut off the power supply or remove battery while charging.
- 4. Never charge a battery that is wet. Dry it with soft cloth prior to charging.
- 5. The battery will eventually weaken. When the operating time (talk-time and standby time) is noticeably shorter than normal, replace the battery.

# **Tips To Prolong Battery Life:**

- Battery performance greatly decreases at temperatures below -4°F (-20°C). Having a spare battery is always necessary in extremely cold environments. A cold battery may work again when it returns to room temperature, so keep it for later use.
- 2. Dust on the battery contact may cause the battery not to work or charge properly. Use

- a clean dry cloth to wipe it before attaching the battery to the radio.
- Batteries with damaged contacts can be extremely dangerous. Any battery with damage to one or more contacts should be replaced immediately and not used under any circumstances.

# **Battery Storage**

- 1. Fully charge a battery before storing it for an extended period of time to avoid battery damage due to over-discharge.
- 2. Recharge a battery after three months storage to avoid reduced battery capacity due to over-discharge.
- 3. When storing a battery, keep it in a dry place at room temperature.

# Charging the Battery

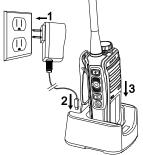
 When the battery status indicator flashes red and an alert tone sounds at intervals of ten seconds indicating the level is very

- low, recharge it. It is never recommended to completely drain the battery, which may cause your battery to malfunction and no longer accept a charge.
- 2. Use only chargers specified by RCA Communications Systems. When the charger's LED illuminates red, it is an indication that the battery is being correctly charged. When the LED illuminates green, the battery charge is complete.

| Status                   | Charged LED                                  |
|--------------------------|--|
| Standby (no-load)        | Orange LED slowly flashes (0.2s on/3s off )  |
| Battery is charging      | Orange LED solidly glows                     |
| Battery is fully charged | Green LED solidly glows                      |
| Error                    | OrangeLED rapidly flashes (0.2s on/0.2s off) |

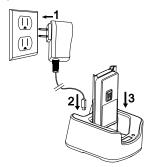
# **Battery Charging with Radio:**

- 1. Plug the AC adapter into an AC outlet socket.
- 2. Plug the AC adapter connector into the charger's AC input jack.
- 3. Place the radio with the battery attached in the charger. The charger indicator light will glow solid orange indicating that charging is active.
- 4. When the charge indicator glows green the battery is charged and the radio can be safely removed for use.



# **Battery Charging without Radio:**

- 1. Plug the AC adapter into an AC outlet socket.
- 2. Plug the AC adapter connector into the charger's AC input jack.
- 3. Place the battery in the charger. The charger indicator light will glow solid orange indicating that charging is active.
- 4. When the charge indicator glows green the battery is charged and the radio can be safely removed for use.



# **Charging Troubleshooting:**

When troubleshooting, always observe the color of the LED:

## **No LED Indication**

1. Make sure that the power cord is plugged into an appropriate AC outlet.

Red LED flashes rapidly (0.2s on/0.2s off)

Remove the battery from the charger, and:

- Make sure that you are using an original RCA Communications Systems battery. Remove power from the battery charger. Clean the charger and the battery's charging contacts using a clean, dry cloth.
- 2. Make sure the battery temperature isn't above 113°F. (45°C)
- Power up the charger and place the battery back into the charging cup. If the LED indicator continues to flash red, most likely, the battery can no longer be charged and must be replaced. To determine if the

battery requires replacement, place the battery pack into another charger that you know is working properly. If the LED continually flashes red, battery replacement is necessary.

#### Notes:

- When the battery charger detects the proper battery conditions, rapid charging begins automatically (steady orange LED).
- If the battery temperature is above 113°F (45°C), the charger will report the fault by flashing the red LED rapidly (0.2s on/0.2s off), and will not charge until the battery temperature is below 113°F (45°C) with the red LED changing to solid illumination.

#### ANTENNA INFORMATION

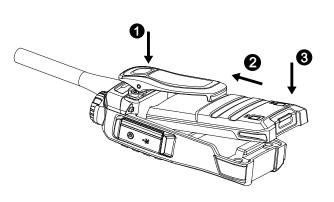
• Stubby (3") antennas are ideal for communication within limited range, and standard (6") antennas optimize coverage; the longer the antenna, the better the coverage is. If you use a stubby antenna for convenience instead of a standard length antenna, you can expect approximately a 30% reduction in coverage. When using a two-way radio outdoors, heavy rain, snow, buildings or thick forest can dramatically reduce radio coverage.

# ASSEMBLY AND DISASSEMBLY Attaching the Battery

- 1. Lift the belt clip and align the top part of the battery under the belt clip.
- 2. Slide the top of the battery up and into position.

3. Push the bottom part of the battery down into position until you hear the battery latch click. See image below.

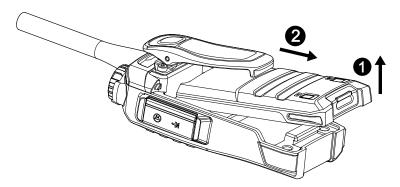
**Note:** If the battery is not securely locked, remove it and reattach it.



# **Removing the Battery**

Note: Turn off the XR150<sup>™</sup> if it is on.

- 1. Slide the battery latch on the bottom of the XR150™ to release the battery.
- 2. Lift the bottom part of the battery out of the radio first and then slide the top part of the battery down and out of position, removing it from the battery compartment.



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## **Attaching the Antenna**

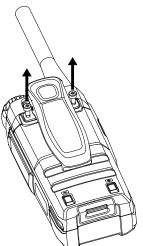
- 1. Insert the antenna into the threaded hole on top of the main unit.
- 2. Turn the antenna clockwise as shown until it is tight.



# Attaching/Removing the Belt Clip

- 1. Using a small screwdriver, remove the screws from the back of the radio's chassis.
- 2. Align the belt clip's screw holes to the radio's chassis. Turn the screw clockwise into the belt clip's screw holes.

3. To remove the belt clip, turn the screwdriver counter-clockwise to loosen the screws and remove the clip. See illustration below.

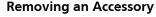




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#### Attaching an Accessory

1. Open (not remove) the accessory cover. Plug the audio accessory firmly into the accessory jack, as shown.



1. Unplug the audio accessory from the accessory jack and close the accessory jack cover.





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# GENERAL RADIO OPERATIONS AND BASIC FUNCTIONS

### Turn the Radio On/Off

Long press the Power Switch until an alert tone is heard to turn the radio on. To turn the radio off, do the same.

# **Adjust the Volume**

You may adjust the volume level through Volume Adjust Keys [+]/[-]. Press the [+] key to increase the volume, or press the [-] key to decrease the volume.

# Selecting a Channel

Turn the **Channel Selector** knob to select a channel. Make sure the desired channel number points at the Channel Indicator.

# Transmitting

To transmit, press and hold down the PTT key, speak into the microphone in a normal voice level. Hold the  $XR150^{TM}$  about 1 to 2 inches (3 to 5 centimeters) away from your mouth.

## Receiving

To receive signal, release the **PTT** key.

#### PROGRAMMABLE AUXILIARY FUNCTIONS

The **SK** key is a programmable function button. Your dealer may assign any of the following auxiliary functions to a short or long programmable key-press:

None, Power Adjust, Monitor, Monitor momentary, Scan, Scrambler, VOX (voice-operated transmit), Compander, Squelch Off, Squelch Off Momentary, Battery Strength Indicator and Channel Lock (If you rotate the Channel Selector knob with Channel Lock function enabled, the current channel number will remain unchanged. This function will not be disabled after programming.).

#### **ADVANCED OPERATIONS**

The following functions are programmable by your dealer.

#### CTCSS/CDCSS

Set up talk groups with unique CDCSS/CTCSS to prevent unwanted conversations on the same frequency. If CTCSS/CDCSS has been set on the current channel, CTCSS/CDCSS match is required for the radio to unmute an incoming signal. If CTCSS/CCSS is not set, the radio can receive calls from all users operating on the same frequency. Your dealer may set CTCSS/CDCSS for some channels. This feature does not prevent others from hearing your conversation. Radios with the same CTCSS/CDCSS or with no CTCSS/CDCSS, can receive communication from you.

## **Battery Save**

The Battery Save feature will be automatically activated once no activity is present on the channel and no operation is performed (no

key press and no knob selection), for extended operation time. Once the radio detects no activity on the channel and no operation performed (no key press and no knob selection) during radio standby time, it will automatically enter sleep mode ten seconds later. Pressing any key or receiving a signal will cause the radio to exit Battery Save and return to normal operation.

## **Power Adjust**

Users can switch the transmit power level between high and low power by pressing the programmed **Power Adjust** key.

## **Time-Out Timer (TOT)**

The TOT timer limits the amount of time the radio can continuously transmit on a channel and protects the radio from damage due to excessive transmission. If the user holds down the **PTT** key longer than the pre-programmed time period, the radio will automatically stop transmitting and generate a warning tone

until the **PTT** key is released. Your dealer may program the alert tone that sounds before the TOT timer nearly expires.

# **Battery Strength Indicator**

XR150<sup>™</sup> allows you to simply press the programmed **Battery Strength Indicator** key to illuminate the Status Indicator, which indicates a variety of battery strength levels. To exit the indications, release the key. The Status Indicator glows different colors to represent battery strength levels. (See chart)

While the radio is in standby mode, Status Indicator flashes red and a low-pitched tone sounds at ten second intervals.

If **PTT** key is pressed at the moment, the radio will give an alert indicating that transmission is prohibited.

| Battery<br>Strength | Status Light Indication  |
|---------------------|--|
| 70% - 100%          | Status Indicator glows solid green.  |
| 50% - 70%           | Status Indicator glows solid orange.   |
| 30% - 50%           | Status Indicator glows solid red.  |
| 10% - 30%           | No indication is given when the programmable key is pressed;<br>Status indicator flashes red while the radio is operating. |
| < 10%               | No indication is given when the programmed key is pressed.   |

#### **Monitor**

## Squelch Off

In this mode, the speaker is unmuted in any condition and receives any sound on the current channel. When audio signal is received on the channel, audio will be heard. Otherwise, background noise will be heard. Press the Monitor key to enter this mode, and press it again to exit.

## • Squelch Off Momentary

When audio signal is received on the channel, audio will be heard. Otherwise, background noise will be heard. Hold down the programmed key continuously to enter this mode, and release the key to exit.

#### Monitor

In this mode, the receiving party can receive incoming calls from the transmitting party regardless of CTCSS/CDCSS condition. If carrier condition is not satisfied, the receiving party will fail to receive any incoming calls. Press the Monitor key to enter this mode, and press it again to exit.

## • Monitor Momentary

Refer to Monitor. Hold down the programmed key continuously to enter this mode, and release the key to exit.

#### Scan

The Scan feature enables a two-way radio to continuously scan each channel for activity. Press the programmed **Scan** key to initiate scanning channels in the order they appear in the scan list. Status Indicator flashes green during the scan process, and solidly glows when activity is detected and signaling condition is satisfied on a channel. Press the key again to exit scanning. When scanning is active, the radio will continuously scan for activity on scan list. Once activity is detected on a channel, scanning will pause on the active channel for you to receive activity. The channels available for scanning are programmed by your dealer.

## • No Priority Channel

Provided that there is a scan list with six channels and all channels are not prioritized, the normal scan operation will proceed in the sequence shown below.

#### • Scan On / Off

You can enter scan mode through two methods:

**Key Operation** 

Press the programmed **Scan** key to enter scan mode, provided that there are no less than 2 members in the scan list. Press **Scan** key again or power off to exit.

#### Auto

If Auto Scan is enabled for a channel, the radio will automatically enter scan mode when it is switched to this channel. When it is switched to other channels or powers off, the radio will exit from scan mode.

#### Talk Back

This option defines whether users can talk back on the channel where scanning pauses. When the option is checked, users can do so. If the scanning does not pause on any channel, users may talk back on the predefined channel.

# • Priority Channel Scan

This function enables users to scan the most frequently used channel so that communication isn't missed. The priority channel is programmed by the dealer via programming software. Contact your dealer for details.

Note: Even though the radio remains on a nonpriority channel, activities on the priority channel are still monitored. The radio will switch to the priority channel once any activity is detected.

## Available Keys in Scan Mode:

**PTT** key, Volume Adjust keys [+] / [-], and 4 programmable keys of Squelch Off, Squelch Off Momentary, Monitor and Monitor Momentary.

## • Busy Channel Lockout (BCL)

This function can help avoid interference between radios operating on the same channel. When the channel is already in use, the radio will sound a continuous warning tone and return to Receive mode when PPT is pressed. To cancel the tone, release the PTT key.

## Low Battery Alert

When battery power runs low, Status Indicator will flash red and a low-pitched tone will sound every ten seconds to remind users to replace the battery.

# **VOX (Voice Operated Transmission)**

With a dedicated VOX earpiece, you can enjoy hands-free communication. When this function is enabled, the radio will automatically begin transmitting when you speak, and terminate transmitting when you stop without pressing the PTT key.

## • Operation Steps:

- 1. Push the PTT/VOX switch on the earpiece to VOX.
- 2. Plug the earpiece into the radio's accessory jack.
- 3. Press the programmed **VOX** key to activate the VOX feature.
- 4. When no signal is received, speak through the earpiece's microphone to transmit your voice.

## • Operation Instructions:

1. Press the PTT on you radio to disable the VOX during its operation, and release PTT to reactivate this function.

- 2. Press the programmed VOX key to enable/ disable the VOX feature, with corresponding alert tone. When it is enabled, the alert tone sounds once; when it is disabled, the alert tone sounds twice.
- The VOX feature will be disabled automatically after the radio is turned off or programmed.
- 4. The VOX function will work with a dedicated earpiece.
- 5. Your dealer may set VOX sensitivity or disable the VOX feature through programming software. The VOX key will be not work when the VOX feature is disabled.

#### Note:

- VOX / PTT function switch can be used in this way: unplug the earpiece switch between VOX and PTT plug on the earpiece.
- 2. After the above operations are completed, it takes approximately 2-3 seconds for the radio to perform auto-detection and then

- it operates normally. To avoid breakdown caused by expected detection error, do not use the earpiece during auto-detection process.
- 3. If the earpiece operates abnormally, unplug the earpiece and and plug it in again as instructed above.
- You may select VOX levels according to the operating environment. Too much noise and high VOX level may cause the radio to transmit continuously.
- Use only the VOX earpieces specified by RCA. Plug a VOX earpiece into the radio's jack properly, or the VOX function may not work.

To purchase accessories, please contact your RCA Communications Systems authorized dealer. (See page 40.)

# **TROUBLESHOOTING**

| Symptom   | Solution   |
|---|--|
| Cannot power on the radio   | <ul><li>a. The battery needs charging. Recharge the battery or replace it with a fresh one.</li><li>b. The battery is not properly installed. Remove the battery and reattach it.</li></ul>  |
| The operating time is noticeably shorter than normal even though the battery is properly charged. | a. The battery has worn out; it is time to buy a new battery.     b. The battery is not fully charged. Make sure that the battery is removed after LED indicator has turned green.   |
| Cannot talk to or hear group members  | <ul> <li>a. Make sure that your radio operates on the same frequency and has the same CTCSS/CDCSS settings as your group members.</li> <li>b. Make sure you are within their communication range.</li> <li>c. Make sure Channel Lock function is not enabled.</li> </ul> |
| Hearing non-group members   | Send your radios to your dealer to change your CTCSS/CDCSS settings and have your group members do so, also.   |
| No voice or low voice while transmitting  | a. Turn the volume control knob to its maximum volume.     b. Return the radio to your dealer to check for microphone damage.  |
| Noise Always On   | Group members are too far away to receive their call. Move within the communication range and re-power on the radio.   |

| General Specification                |                              |
|--------------------------------------|------------------------------|
| Frequency Range UHF                  | 450-470 MHz                  |
| Channel Capacity                     | 16                           |
| Channel Capacity                     | 25 /12.5 KHz                 |
| Operating Voltage                    | 3.7V                         |
| Battery Type                         | 1700mAh Lithium Ion (Li-ion) |
| Battery Life (5-5-10 Duty Cycle)     | 10 hrs.                      |
| Frequency Stability                  | ±5ppm                        |
| Operating Temperature                | -4~131°F (-20~+55°C)         |
| Antenna Impedance                    | 50Ω                          |
| Dimensions (w/ battery & no antenna) | H:3.9 × W:1.9 x D:1.1 in     |
| Weight (w/antenna & battery)         | 4.8oz (135g)                 |

# **Optional Accessories**



Multiple Desktop Charger Cable

#### PC1506

More convenient for plugging in multiple chargers using one power outlet for charging 6 radios.



Light Duty Speaker Microphone

# SM110-X03S

No need to remove the radio from your waist, which prevents radio damage or loss.

# **Optional Accessories** continued Ear-Hook Style Earpiece with Microphone PTT SK11EH-X03S Serves the same function as the professional surveillance kit at an economical price. Surveillance Kit with Palm Mic and In-Line PTT SK11NE-X03S Professional, high quality earpiece ideal for radio users requiring discreet communication Lightweight Over-The-Head Headset with In-line PTT **HS21V-X03S** Durable and inexpensive. Perfect for retail stores, restaurants and bars

| Optional Accessories continued |   |
|--------------------------------|---|
| ROA                            | Heavy Duty, Remote Speaker Microphone <b>SM310-X03S</b> No need to remove the radio from your waist, which prevents radio damage or loss.   |
| ROA                            | Medium Duty, Remote Speaker Microphone <b>SM220-X03S</b> Never remove the radio from your waist preventing radio damage or loss.  |
|                                | Professional Listen-Only Earpiece w/ Transparent Acoustic Tube (for use with remote speaker microphone) <b>SK01CNE-X79</b> Lightweight earpiece for use with speaker mics and when transmitting is not necessary. |

| Optional Accessories continued |  |
|--------------------------------|--|
|                                | Economy Listen-Only Earpiece (for use with remote speaker microphones) <b>SK01CEH-X79</b> Same functions as the professional earpiece but at an economical price.  |
|                                | Heavy Duty, Over-The-Head Headset  HS61NR-X03S  For use in high noise environments such as airports, race tracks and manufacturing plants (-24dB noise reduction). |
|                                | Heavy Duty, Behind-the-Head Headset  HS71NR-X03S  When a hard hat is necessary in high noise environments.   |

| Optional Accessories continued |  |
|--------------------------------|--|
|                                | Nylon Holster (fixed belt loop)  HN150L  Prevents loss and prolongs your radio life by preventing unnecessary drops and abuse. |
|                                | Waterproof Bag<br>HNWATPROOF<br>Protect your XR150™ radio when working around water.   |

#### CARE AND CLEANING

- Do not directly handle the radio by its antenna or external earpiece or microphone.
- Do not place the radio in a dusty or dirty environment.
- Clean the radio with a lint-free cloth moistened with clean water and/or a mild dish washing liquid to remove dirt, grease, and dust.
- Avoid exposing the radio to corrosives, solvents or spirits.

#### **GLOSSARY**

**Short Press** - Key press shorter than 1.5 seconds

**Long Press** - Key press longer than 1.5 seconds

**Standby Status** - In normal mode, no key operation is made on the radio and the radio is in receiving status.

**CTCSS/CDCSS** - The setting of CTCSS/CDCSS code in transmitting party must match that in the receiving party for the receiver to unmute its output audio.

**Battery Save** - The function is to save battery power and prolong the operation time. Once no activity or operations are occurring on the channel, the radio will be on and off alternately.

**Time-out Timer (TOT)** - The time-out timer feature stops someone from talking too long and tying up the channel.

**Squelch** - The purpose of squelch is to mute audio output from the speaker when no signals are present. Open the squelch to unmute radio speaker.

**Squelch Off** - Always unmute speaker to receive audio as well as background noise.

**Monitor** - Carrier condition must be satisfied for the radio to unmute to an incoming call, regardless of CTCSS/CDCSS condition.

## **GLOSSARY** continued

**Momentary** - Hold down the Function key to activate the status, and release it to turn it off.

**Scan** - The scan feature enables the radio to continuously scan each channel for activity.

**Busy Channel Lockout** - Avoid interference with users on same channel by preventing transmission if another talk group is already on the air.

**VOX** - "Hands-free" option that will automatically begin transmitting when you speak.

## WARRANTY STATEMENT

RCA Communications Systems warrants each new radio product it supplies to be free from defects in material and workmanship under normal use and service for the time period listed below, provided that the user has complied with the requirements stated herein.

The warranty period begins on the date of purchase from an Authorized RCA Communications Systems Sales and Service Outlet. This warranty is offered to the original end user and is not assignable or transferable. RCA Communications Systems is not responsible for any ancillary equipment which is attached to or used in conjunction with RCA Communications Systems products. *continued* >

RCA Communications Systems offers to the original end user a Two (2) Year Limited Warranty on the RCA XR150<sup>TM</sup> Radio Handset. The XR150<sup>TM</sup> Antenna, XR150<sup>TM</sup> Battery and the XR150<sup>TM</sup> Battery Charger are covered under a One (1) Year Limited Warranty. The XR150<sup>TM</sup> Belt Clip is not covered under the warranty.

During this period, if the product fails to function under normal use because of manufacturing defect(s) or workmanship, it should be returned to the Authorized RCA Communications Systems Sales and Service Outlet from which it was purchased. The Sales and Service Outlet will repair the product to full operating specifications or replace the product with a new product of the same make and model. The user is responsible for all charges incurred in returning the product to the Authorized RCA Communications Systems Sales and Service Outlet. RCA Communications Systems will be responsible for all charges in returning the product to the end user via standard ground shipping service.

RCA Communications Systems shall have no obligation to repair or replace the product, if there is damage as a result of normal wear and tear or if the damage is caused in whole or in part by catastrophe, fault or negligence of the user, improper or unauthorized alterations or repairs to the product, incorrect wiring, use of the product in a manner for which it was not designed, or by causes external to the product. This warranty is void if the product serial number is altered, defaced or removed.

THE EXPRESS WARRANTIES CONTAINED HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

FOR ANY PRODUCT WHICH DOES NOT COMPLY WITH THE WARRANTY SPECIFIED, THE SOLE REMEDY WILL BE REPAIR OR REPLACEMENT. IN NO EVENT WILL RCA COMMUNICATIONS SYSTEMS BE LIABLE TO THE BUYER OR ITS CUSTOMERS FOR ANY DAMAGES, INCLUDING ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, OR THE LOSS OF PROFIT, REVENUE OR DATA ARISING OUT OF THE USE OR THE INABILITY TO USE THE PRODUCT.

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The end-user of any two-way radio is solely responsible for obtaining any license or other authorizations required by the Federal Communications Commission (FCC). For further information visit www.fcc.gov or call 1-888-CALL-FCC (1-888-225-5322).

# RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the following procedures.

#### Guidelines:

Do not remove the RF Exposure Label from the device.

User awareness instructions should accompany device when transferred to other users.

Do not use this device if the operational requirements described herein are not met.

## Operating Instructions:

Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button.

Transmitting 50% of the time, or less, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance). Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.

When worn on the body, always place the radio in a approved clip, holder, holster, case, or body harness for this product.

Using approved body-worn accessories is important because the use of or other manufacturer's non-approved accessories may result in exposure levels, which exceed the FCC's occupational/controlled environment RF exposure limits.

If you are not using a body-worn accessory and are not using the radio in the intended use position in front of the face, then ensure the antenna and the radio are kept at least one inch (2.5 cm) from the body when transmitting. Keeping the radio at the proper distance is important because RF exposures decrease with increasing distance from the antenna.

Use only RCA Communications Systems approved supplied or replacement antennas, batteries, and accessories. Use of third party antennas, batteries, and accessories may exceed the FCC RF exposure guidelines.

For Sales, Warranty and Customer Support please contact:

Discount Two-Way Radio Corporation – North American Distributor 1430 240th Street Harbor City, CA 90710

Phone: 310-224-5100 / Fax: 310-224-5101 www.discounttwo-wayradio.com