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Complete User Manual at: [RCACommunicationsSystems.com](http://RCACommunicationsSystems.com)



[www.rcacommunicationssystem.com](http://www.rcacommunicationssystem.com)  
[products@rcacommunicationssystem.com](mailto:products@rcacommunicationssystem.com)  
 (877) 822-2915

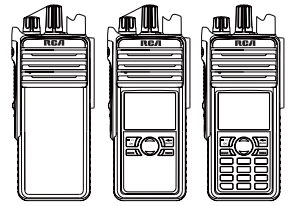
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# RDR42x0 Professional Digital Two-Way Radio

**What's Included:**



**RDR4220** Handheld Radio    **RDR4250** Handheld Radio    **RDR4280** Handheld Radio



2300 mAh Li-Ion Battery



Whip Antenna VHF or UHF



Heavy Duty Belt Clip

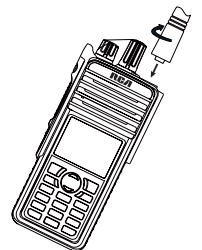


Power Supply for Charger Base



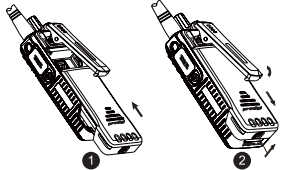
Desktop Rapid Charger Base

**Attaching the Antenna:**



Screw the antenna into the connector at the top of the radio by holding the bottom of the antenna and turn it clockwise until secure.

**Attaching the Battery:**

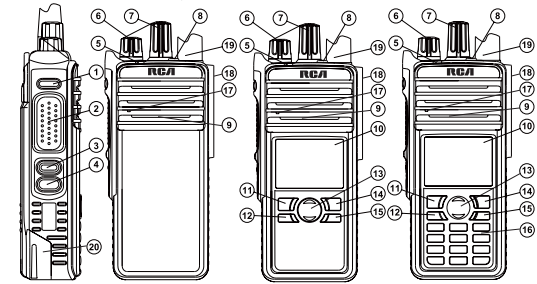


1. To install the battery, place it into the grooves on the radio chassis. If the radio belt clip is installed, press the clip to raise it and slide the battery into position. Slide battery into place, you will hear the latch click and the battery is installed. (See **1**)
2. To remove the battery from the radio, press the battery latch located on the bottom of the radio, and then slide the battery down about 5mm to release the latch. (See **2**)

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

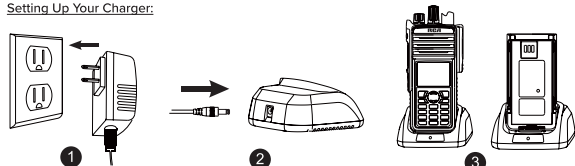
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## QUICK START GUIDE



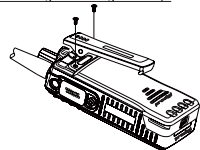
- |                                       |  |
|---------------------------------------|--|
| <b>1</b> Side Button 1 (Programmable) | <b>11</b> OK / Menu Button               |
| <b>2</b> Push-To-Talk Button (PTT)    | <b>12</b> Front Button P1 (Programmable) |
| <b>3</b> Side Button 2 (Programmable) | <b>13</b> 2-Way Navigation Button        |
| <b>4</b> Side Button 3 (Programmable) | <b>14</b> Return / Home Button           |
| <b>5</b> LED Indicator                | <b>15</b> Front Button P2 (Programmable) |
| <b>6</b> On/Off/ Volume Knob          | <b>16</b> Keypad                         |
| <b>7</b> Channel Knob                 | <b>17</b> Microphone                     |
| <b>8</b> Top Button (Programmable)    | <b>18</b> Accessory Connector            |
| <b>9</b> Speaker                      | <b>19</b> Antenna                        |
| <b>10</b> Display (RDR4250 / RDR4280) | <b>20</b> Battery                        |

**Setting Up Your Charger:**



1. Plug the adapterys AC connector into the AC outlet socket. (see 1)
2. Plug the adapterys DC connector into the DC socket on the back of the charger. (see 2)
3. Place the radio with the battery attached, or the battery alone, in the charger. (see 3)
4. Make sure the battery contact is touching the charging terminals. The charging process begins when the red LED light illuminates.
5. The green LED light will illuminate approximately two hours later, indicating the battery is fully charged.

**Attaching/Removing Belt Clip:**



Use the 2 screws (M2.5x8.0) supplied with the radio and insert these screws through the holes in the radio clip and into the holes in the aluminum case. If you want to remove the clip from the radio, just unscrew them, and remove the clip. You can put the screws back into the radio to make sure you do not lose them.

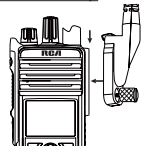
**ATTENTION:**

- Remove battery for easy installation
- Do not use power tools, only screwdriver

**Function Keypad (RDR4250/RDR4280 model)**



**Attaching audio accessory:**



Open the cover of the connector for external speaker/MIC, and then insert the plug of the external speaker or microphone onto the connector socket of the radio. When screwing the accessory plug, make sure it is properly aligned (straight) to ensure the right connection to the connector of the radio.

**NOTE:** Please loosen the screw prior to removing the audio accessory.

**Programmable Keys**

[P1] key, [P2] key, [P3] key, and Top Button, can be set as function or menu shortcut keys by your RCA dealer. The function keypad is to help navigate the on-screen menu of RDR4250 or RDR4280.

**Basic Operations**

**Turning on/off radio**

Rotate the Radio On-Off/Volume knob clockwise / counter-clockwise until a click is heard to turn on/ off the radio.

**Adjust the volume**

After turning the radio on, rotate the Radio On-Off/Volume knob clockwise to increase the volume or counter-clockwise to decrease the volume.

**Selecting a channel**

Locate the channel number on the Channel Knob rotate it to select the desired channel. While rotating the knob, there is an automated channel number Voice prompt.

**Mode Switch**

Through Channel Selector knob. Each channel of the radio can be set as analog channel or digital channel by the dealer. The user can set them up through CPS software.

**Call**

**Group Call**

Talk group can be set by the dealer in advance and the operation methods are the same under DMO mode and TMO mode.

• **Transmitting a group call**

1. Select the desired talk group through Channel Knob.
2. Hold down [PTT] key to transmit a group call.

• **Receiving and replying a group call**

You can receive the group call without any key operation. If reply is needed, please hold down [PTT] key after the speech of the other side and then speak to microphone.

**Care and Cleaning**

To guarantee optimal performance as well as a long service life of your radio, please follow the tips below.

**Radio Care**

Keep the radio far away from substances that can corrode the electronic circuit.

Do not hold the radio by its antenna or headset cable directly to prevent damage to its normal use.

Attach the accessory jack cover when the radio is not in use.

**Radio Cleaning**

Clean up the dust and fine particles on the radio surface and charging piece with a clean and dry lint-free cloth or a brush regularly.

Use neutral cleanser and a non-woven fabric to clean the keys, control knobs and front case after long-time use. Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations, so as to avoid surface case damage. Make sure that the radio is completely dry before use.

**NOTE:** Turn off the radio and remove the battery before cleaning.

**Battery indicator**

Battery Usage Status	Audio Indication (RDR4220 model)	Display Indication (RDR4250/RDR4280)
Power ≥ 80%	High Battery	
Power ≥ 40%	Medium Battery	
Power ≤ 40%	Low Battery	
Power ≤ 10%	Very Low Battery	

**Charger LED indicator**

LED Indication	Charging Status
LED Flashes Red Slowly	Standby (no load)
LED Glows Red	Charging
LED Glows Green	Fully Charged
LED Flashes Red Rapidly	Error

**Radio LED indicator**

LED Indication	Radio Status
Blinking Red	Radio is at low battery indication
Solid Orange	Powering up
Solid Green	Radio is receiving, or detecting activity over the air
Solid Red	Radio is transmitting
Blinking Orange	Radio is scanning, or in selective call, or emergency state

**Note:** When the LED is solid green, it indicates the radio detects activity over the air. Due to the nature of the digital protocol, this activity may or may not affect the radio's programmed channel.

**Display Icons**

The LCD display shows radio status, text entries, and menu entries. The following are icons that appear on the radio's display.

	<b>No Signal</b>	The number of bars displayed represents the radio signal strength and is only displayed while the radio is in receiving mode.
	<b>Received Signal Strength Indicator (RSSI)</b>	The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	<b>Battery</b>	The number of bars (0 - 3) shown indicates the charge remaining in the battery.
	<b>Accessory Link</b>	The Accessory Link feature is enabled but there is no remote Accessory Link device connected.
	<b>Accessory Link Connected</b>	The Accessory Link feature is enabled. The icon stays lit when one or more remote Accessory Link devices are connected.
	<b>Scanning</b>	Scan land on Scan feature is enabled.
	<b>Encryption Enable</b>	The Privacy feature is enabled.
	<b>GPS Available</b>	The GPS feature is enabled. The icon stays lit when a position fix is available.
	<b>GPS Not Available / Out of Range</b>	The GPS feature is enabled. The icon stays lit when a position fix is available.
	<b>Accessories Connected</b>	Accessory Connected
	<b>Power Level</b>	Radio is set at Low/High power.
	<b>DM</b>	Talk around mode.
	<b>RM</b>	Repeater mode
	<b>Unread Message</b>	Unread Message
	<b>Missed Call</b>	Missed Call
	<b>VOX Enable</b>	VOX Enable
	<b>Speaker Open</b>	Speaker Open

# RF Exposure / Compliance Information



## FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTE 1:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**NOTE 2:** Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## ISED Compliance statement

This device complies with ISED license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en

**WARNING:** Under ISED regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by ISED. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. The transmitter antenna gain shall not exceed 0 dBi.

**FRENCH:** Conformément à la réglementation d'ISED, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par ISED. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Please refer to the following websites for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits. <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html> [http://www.ic.gc.ca/eic/site/ceb-bhst.nsf/eng/h\\_tt00080.html](http://www.ic.gc.ca/eic/site/ceb-bhst.nsf/eng/h_tt00080.html)

## Important Safety Information

**Attention:** This radio is restricted to Occupational use only. Before using the radio, read the RF Energy Exposures and Product Safety Guide for Portable Two-Way Radios which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and Regulations.

For a list of RCA Communications Systems approved antennas, batteries, and other accessories, visit the following website:  
<https://www.rcacommunicationsystems.com>

## RF Energy Exposure Awareness and Control Information and Operational Instructions for Occupational Use

**NOTICE:** This radio is intended for use in occupational/controlled conditions where users have full knowledge of their exposure and can exercise control over their exposure to meet the occupational limits in FCC and International standards. This radio device is **NOT** authorized for general population consumer use.

### 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 RCA's approved clip for this product. Using approved body-worn accessories is important because the use of RCA's or other manufacturer's non-approved accessories may result in exposure levels, which exceed the 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 2.5 cm (one inch) 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 non-approved antennas, batteries, and accessories may exceed the FCC and IC RF exposure guidelines.

### EXPOSURE RF compliance et Lignes de contrôle et Instructions opérationnelles

Pour contrôler votre exposition et assurer la conformité avec le milieu ambiant, il est toujours nécessaire de suivre les procédures suivies.

Taliban:

- On ne peut pas enlever le Label RF de ce dispositif.
- L'utilisateur doit utiliser le dispositif de référence pour les autres utilisateurs.
- Il ne faut pas utiliser cet appareil pour les besoins opérationnels.

Description des opérations:

- La transmission ne dépasse pas 50% de la valeur nominale. Pour téléporter (appel), appuyez sur le bouton "Push – To– Talk" (PTT). Pour recevoir un appel, libère le bouton du PTT. La réduction de 50 % du temps, ou moins, est importante, étant donné que cette radio a été exposée à la seule fois que la radioactivité de la radioactivité a été utilisée en tant que mesure de conformité.
- La radio est placée en face de face avec le microphone (et les autres parts de la radio) à moins d'un inch (2,5 cm). Le maintien de la radio à distance est important car il est important que les données soient tirées de la distance.
- Quand on est sur le corps, toujours place la radio dans un clip pour ce produit. Le recours à la procédure de recours est important parce que la use de ces produits ou autres produits non réglementés peut avoir des effets secondaires, C'est ce qui est le plus important.
- Si vous n'utilisez pas une personne pour accéder à la radio dans le front de la face, Il est donc essentiel que la chaîne et la radio soient maintenues à moins de 2,5 cm (un inch) de la personne quand il s'agit de la transmission du corpsdistance séparée de l'antenne.