

Go Beyond Normal Limits...<sup>SM</sup>



# RQA-1B/4B Owner's Manual

## Wireless Call Button System

For use with the Ritron Quick Talk™  
Wireless Voice Monitor & Alarm transmitter

### For use with the following Ritron Quick Talk™ models:

RQT-151-PS	RQT-151M-PS	RQT-152-PS
RQT-152M-PS	RQT-451-PS	RQT-452-PS
RQT-151-RCVR	RQT-151M-RCVR	RQT-152-RCVR
RQT-152M-RCVR	RQT-451-RCVR	RQT-452-RCVR



## PRELIMINARY!

Call 800-USA-1-USA for the right Wireless Solutions to your communication needs.

### Ritron, Inc.

P.O. Box 1998 • Carmel, Indiana 46082-1998 • USA  
Phone: 317-846-1201; 800-USA-1-USA (800-872-1872)  
Fax: 317-846-4978  
Email: [ritron@ritron.com](mailto:ritron@ritron.com)

Ritron Publication 14500086

Rev. A 10-13

© 2013 Ritron, Inc. All rights reserved. Ritron, Patriot, Jobcom, OutPost, GateGuard, Quiet Call and Quick Assist are registered trademarks of Ritron, Inc. Quick Talk, Liberty and RadioNexus are trademarks of Ritron, Inc.

**Table of Content** .....

Compatible RQT Quick Talk™ Models ..... 2

RQA-1B/4B FCC Part 15 Statement..... 2

RQA-1B/4B FCC Part 15 Instructions..... 2

General Information ..... 3

Operating the RQA-1B/4B..... 4

RQA-1B/4B Battery Replacement..... 4

Setting the RQA-1B/4B ..... 5

    Setting the CONFIG Switches for Standard Operation ..... 5

    Setting the CONFIG Switches for Keyfob Operation..... 6

    Setting the LOCATION switches for Standard Operation Only ..... 7

    Setting the Address ..... 7

**Compatible RQT Quick Talk™ Models** .....

The RQA-1B/4B Wireless Call Button is designed to operate with the following Ritron RQT Quick Talk™ models. These Quick Talk™ transmitters have an RQT-433-RCVR receiver installed.

Standard Operation:

RQT-151-PS	RQT-151M-PS	RQT-152-PS
RQT-152M-PS	RQT-451-PS	RQT-452-PS

Keyfob Operation:

RQT-151-RCVR	RQT-151M-RCVR	RQT-152-RCVR
RQT-152M-RCVR	RQT-451-RCVR	RQT-452-RCVR

**Note:** The RQT Quick Talk™ must have firmware revision 32.11 or greater.

**RQA-1B/4B FCC Part 15 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.

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. You can test to see if this equipment does cause harmful interference to radio or television reception by turning the equipment off and on.

**Caution:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**RQA-1B/4B FCC Part 15 Instructions** .....

This device complies with Part 15 of the FCC Rules.

Operation of this device 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.

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.

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

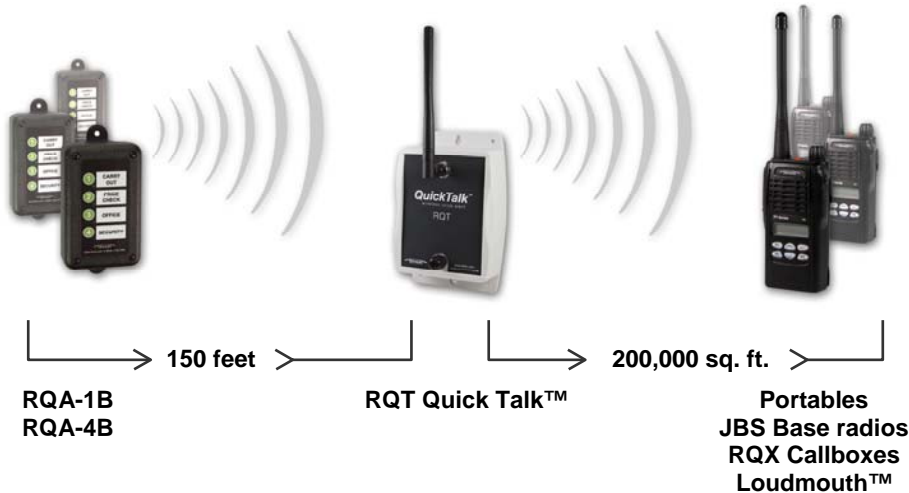
## General Information .....

The RQA-1B/4B is a 433.92 MHz low power, short range Wireless Call Button designed to be used with a Ritron RQT Quick Talk™ Voice Alert transmitter with an RQT-433-RCVR receiver installed. See the section [Compatible RQT Quick Talk™ Models](#) for a list of Ritron model radios capable of operation with the RQA-1B/4B.

When a button on the RQA-1B/4B is pressed the associated LED lights up and a unique code is transmitted. The Quick Talk™ receives the code and transmits an associated pre-recorded message. The RQA-1B/4B can activate 1 of 8 Quick Talk™ “Assistance” messages. Simply record your desired messages into the Quick Talk™ transmitter using the RQT PC Programmer and you are ready to go.

When you press and hold an RQA-1B/4B button for more than 5 seconds a “Call Cleared” code is transmitted to the Quick Talk™, which in turn transmits a pre-recorded “Call Cleared” message. The LED will blink when the button is held for more than 5 seconds, indicating that the “Call Cleared” code will be transmitted.

Each RQA-1B/4B can also be set to send 1 of 15 different “Location” codes to further identify the unit. Location messages are recorded into the Quick Talk™ the same as voice messages. The “Location” message will be played immediately before the “Assistance” message.



The RQA-1B/4B is powered by a single CR123A, 3 VDC, non-rechargeable battery. Depending on usage, the battery can operate the RQA-1B/4B for up to 3 years. The RQA-1B/4B is in a low power “sleep” mode when not in use and draws very little current.

There are two basic types of Quick Talk™ transmitters that can be used with the RQA-1B/4B.

### RQT-xxx-PS Quick Talk™ models for Standard Operation

- Are used exclusively with the RQA-1B/4B Wireless Call Button with up to 8 different “Assistance” messages and 15 unique “Location” messages for maximum capability.
- Send a “Call Cleared” message whenever a call is terminated by the RQA-1B/4B.
- Have no provisions for Quick Talk™ input operation.

### RQT-xxx-RCVR Quick Talk™ models for Keyfob Operation

- Can be set for operation with the RQA-1B/4B on any one of the 4 inputs, allowing input operation and Wireless Call Button operation on the same Quick Talk™ for maximum flexibility.
- There is only a single “Location” message available, but the codes are compatible with Ritron RQT-KEYFOB models to allow simultaneous operation.
- If an input is set for “KEYFOB” operation it will no longer respond to switch closures or analog signals, the two input messages can only be activated by the RQA-1B/4B or the two Ritron RQT-KEYFOB models associated with that input.
- After the radio has been programmed and installed, Ritron model keyfobs and the RQA-1B/4B can be used to activate the Quick Talk™ transmitter and broadcast unique, user recorded voice messages.
- Each of the 4 Quick Talk™ inputs can operate on 2 pre-assigned Ritron keyfobs, a single RQA-1B Wireless Call Button, or on a single button on the RQA-4B Wireless Call Button.

## Operating the RQA-1B/4B .....

When any of the buttons are pressed the RQA-1B/4B will send a code to the Quick Talk™, which in turn decodes the code and begins broadcasting an associated pre-recorded voice message.

The RQA-1B/4B will light the LED associated with the button pressed, and will remain lit while the RQA-1B/4B is transmitting. If a button is pressed and held for more than 5 seconds the LED will blink and a “Call Cleared” code will be transmitted.



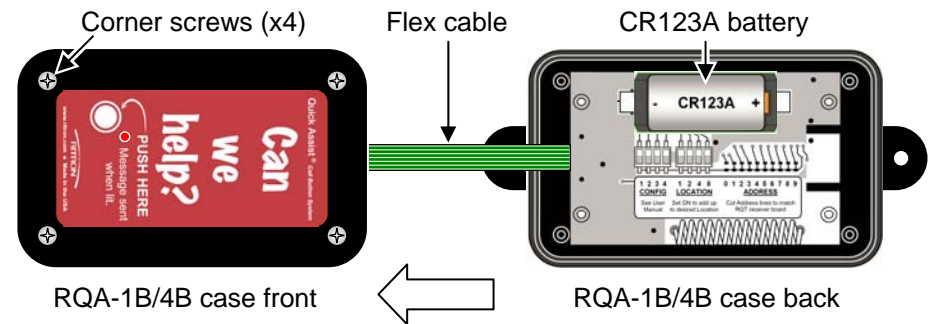
1. Press a button to initiate a message.
2. The LED for that button lights while the button is pressed, and remains lit while the RQA-1B/4B is transmitting.
3. A code is sent to the Quick Talk™ when the button is released.
4. The Quick Talk™ receives the code and broadcasts the associated pre-recorded message on a schedule programmed into the RQT Quick Talk™.
5. Press and hold a button for 5 seconds.
6. The LED begins to blink.
7. A “Call Cleared” code is sent to the Quick Talk™ when the button is released.
8. RQT Quick Talk™ broadcasts a “Call Cleared” message and stops the broadcast schedule.

## RQA-1B/4B Battery Replacement .....

The RQA-1B/4B utilizes a standard CR123A lithium cylindrical cell. Depending on usage, it can provide up to 3 years of operation.

Access for battery replacement is accomplished by:

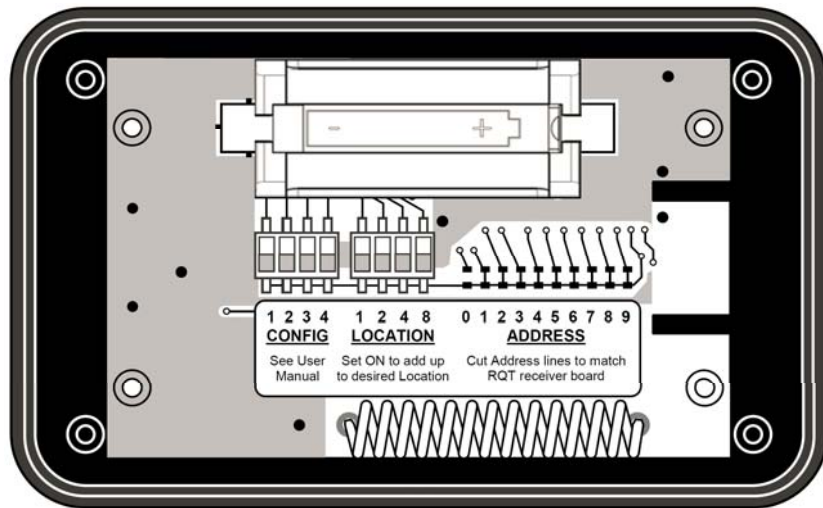
1. Removing the 4 corner screws on the front of the RQA-1B/4B
2. Carefully separating the case halves.
3. Move the case front toward the bottom of the RQA-1B/4B as shown. The case front and case back are connected with a flex cable. Do not place strain on the flex cable connecting the case front to the case back.
4. Replace the battery. Be careful to observe battery polarity.
5. Reposition the case halves and secure with the four corner screws.



There may be the risk of explosion if the battery is replaced by the wrong type. Replace it with the same type CR123A lithium cell battery by installing as shown. Although the battery holder is constructed to discourage incorrect installation, be careful to observe polarity.

## Setting the RQA-1B/4B .....

1. Separate the case front and back by removing the four corner screws and gently lift the case front. The case front and case back are connected with a flex cable. Do not place strain on the flex cable when separating the case.
2. Remove the battery.
3. Note the 3 programming options available, a 4-position CONFIG dip switch, a 4-position LOCATION dip switch, and a 10-position ADDRESS programming array.
4. Set the RQA-1B/4B per the following instructions.
5. Re-install the battery and verify operation with the RQT Quick Talk™. Be sure to observe battery polarity when re-installing.
6. Carefully re-install the case front.



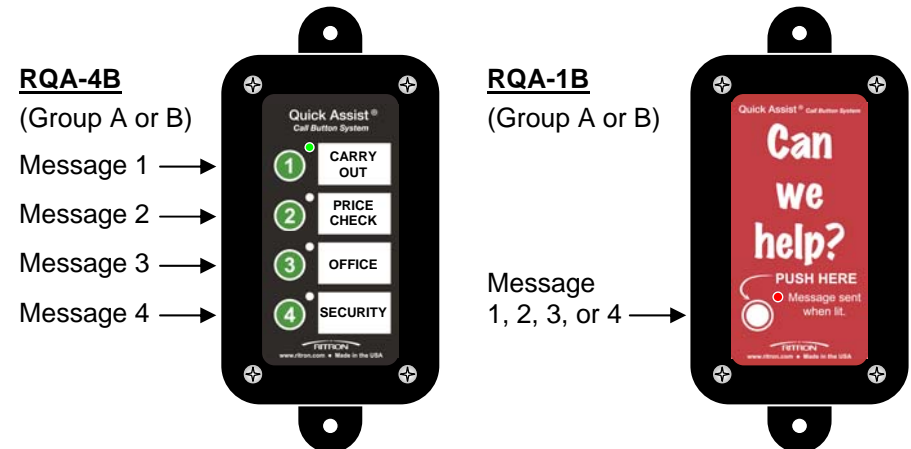
RQA-1B/4B SETTINGS

## Setting the CONFIG Switches for Standard Operation

1. The single button RQA-1B can be set to send any 1 of 8 Message codes. Set CONFIG switches 1 and 2 per the following chart to set the RQA-1B Message code. These switches can be ignored on the RQA-4B.
2. Set CONFIG switch 3 for Group A messages (OFF) or Group B messages (ON).
3. Set CONFIG switch 4 to the OFF position for Standard operation.

	SW1	SW2	SW3	SW4
Message 1, Group A	OFF	OFF	OFF	OFF
Message 2, Group A	ON	OFF	OFF	OFF
Message 3, Group A	OFF	ON	OFF	OFF
Message 4, Group A	ON	ON	OFF	OFF
Message 1, Group B	OFF	OFF	ON	OFF
Message 2, Group B	ON	OFF	ON	OFF
Message 3, Group B	OFF	ON	ON	OFF
Message 4, Group B	ON	ON	ON	OFF

CONFIG Switch Settings for Standard operation



## Setting the CONFIG Switches for Keyfob Operation

With Keyfob operation a Call Cleared message is independent of the normal Assist message, whereas Standard operation appends the normal Assist message with a brief Call Cleared message. This creates limitations in the use of the RQT Quick Talk™ that Standard operation does not have.

- If a Call Cleared message is not required, each RQA-1B/4B can be set to send RQT-KEYFOB codes 1 through 4, therefore requiring only 2 RQT Quick Talk™ inputs (Input1 for RQT-KEYFOB-1 and RQT-KEYFOB-2, Input 2 for RQT-KEYFOB-3 and RQT-KEYFOB-4).
- If a Call Cleared message is required, an RQT Quick Talk™ input is required for each RQA-4B button, with one message used as an Assist message and the other as a Call Cleared message.

1. The single button RQA-1B can be set to send any Message code per the following chart.

Set CONFIG switches 1 and 2 per the following chart to set the RQA-1B Message code. These switches can be ignored on the RQA-4B.

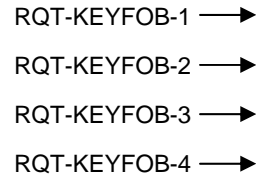
2. Set CONFIG switch 3 to the ON position if a Call Cleared message is required, otherwise set it to the OFF position.
3. Set CONFIG switch 4 to the ON position for Keyfob operation.

	<u>SW1</u>	<u>SW2</u>	<u>SW3</u>	<u>SW4</u>
RQT-KEYFOB-1	OFF	OFF	OFF	ON
RQT-KEYFOB-2	ON	OFF	OFF	ON
RQT-KEYFOB-3	OFF	ON	OFF	ON
RQT-KEYFOB-4	ON	ON	OFF	ON
RQT-KEYFOB-1 with Call Clear	OFF	OFF	ON	ON
RQT-KEYFOB-3 with Call Clear	ON	OFF	ON	ON
RQT-KEYFOB-5 with Call Clear	OFF	ON	ON	ON
RQT-KEYFOB-7 with Call Clear	ON	ON	ON	ON

**CONFIG Switch Settings for Keyfob operation**

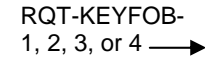
### RQA-4B

(no Call Clear)



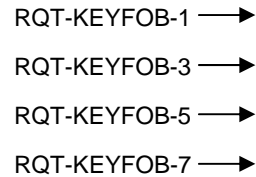
### RQA-1B

(no Call Clear)



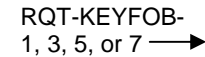
### RQA-4B

(with Call Clear)



### RQA-1B

(with Call Clear)



### Setting the LOCATION switches for Standard Operation Only

When set for Standard Operation with the RQT-xxx-PS model Quick Talk™, the RQA-1B/4B can also be set to send 1 of 15 different “Location” codes to further identify the unit. Location messages are recorded into the Quick Talk™ the same as voice messages.

Set the LOCATION switch code for the RQA-1B/4B per the following chart:

	SW1	SW2	SW3	SW4
No Location	OFF	OFF	OFF	OFF
Location 1	ON	OFF	OFF	OFF
Location 2	OFF	ON	OFF	OFF
Location 3	ON	ON	OFF	OFF
Location 4	OFF	OFF	ON	OFF
Location 5	ON	OFF	ON	OFF
Location 6	OFF	ON	ON	OFF
Location 7	ON	ON	ON	OFF
Location 8	OFF	OFF	OFF	ON
Location 9	ON	OFF	OFF	ON
Location 10	OFF	ON	OFF	ON
Location 11	ON	ON	OFF	ON
Location 12	OFF	OFF	ON	ON
Location 13	ON	OFF	ON	ON
Location 14	OFF	ON	ON	ON
Location 15	ON	ON	ON	ON

### Setting the ADDRESS

For convenience, the RQT-433-RCVR receiver installed in the Quick Talk™ and all RQA-1B/4B Wireless Call Buttons come from the factory set to the same address. This establishes a relationship between a single RQT-433-RCVR receiver and multiple RQA-1B/4B with different codes. For the vast majority of users the address does not need to be changed. Occasionally the user may want to change the address to:

- Install two or more RQT Quick Talk™ with RQT-433-RCVR receivers in the same location.

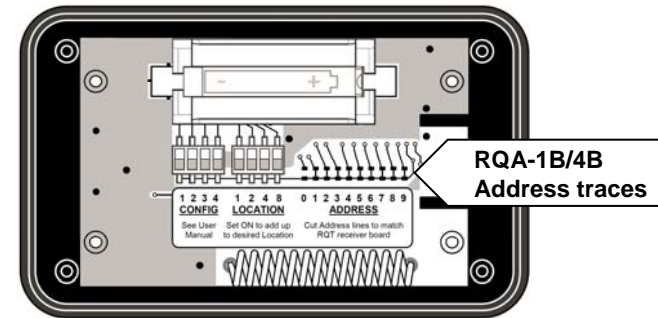
- Avoid interference with another transmitter using the same address.
- Create a more secure “non-standard” address.

The RQT-433-RCVR receiver and RQA-1B/4B transmitters allow the selection of one of 1,024 unique addresses. To avoid contention with other units or to create unique relationships, the address can be changed. This is accomplished by cutting PCB traces with a sharp object, such as an X-Acto knife.

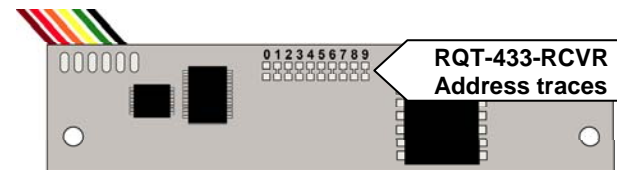
On the RQA-1B/4B Wireless Call Button the traces are accessed by removing the front cover. If the trace is intact, the address line is connected to ground, otherwise it is floating. The RQT-433-RCVR receiver address must match exactly in order for the units to communicate.

### IMPORTANT!

The RQA-1B/4B and the RQT-433-RCVR receiver installed in the RQT Quick Talk™ housing must be set to the same address.



RQA-1B/4B Address Programming



RQT-433-RCVR Address Programming