RQA-DB Quick Assist ® with Field Programming

GEN 2

WIRELESS DOORBELL TRANSMITTER USER MANUAL

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

P.O. Box 1998 • Carmel, Indiana 46082-1998 • USA
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What this Manual Covers

This manual covers basic operation of the RQA-DB Quick Assist® Wireless Doorbell Transmitter. For most applications, this is all the information you will need.

General Information

The RQA-DB is a RITRON Wireless Doorbell Transmitter, specialized for retail or commercial use, that is pre-programmed to transmit a custom recorded "Assistance Needed" message when a remotely wired push-button is pressed for customer assistance. Personnel know from these message transmissions the specific areas in which a customer needs assistance.

The RQA-DB is easily programmed to transmit on either an existing or a new radio frequency, with the most popular sub-audible coded squelch formats, such as Quiet Call® or Digital Quiet CalI®. This enables all your personnel with two-way radios to hear the voice messages instantly.

The RQA-DB transmitter can be installed in a wide variety of indoor locations optimized for radio coverage, with the wired remote push-button installed at the indoor or outdoor customer service location.

The six internal AA Alkaline batteries will power the unit for about a year, the RQA-DB does not require AC line power. It is recommended that you change the batteries in your RQA-DB at least one time per year.

RQA-DB Quick Assist® Features

- Radio transmitter (VHF, UHF, MURS models).
- Optional remotely wired, heavy duty push-button (Ritron# RPB-1AG) with
- User-recorded voice messages; total recording time of 24 seconds.
- Typical range of 1/4 mile.
- Internal battery holder for six (6) AA Alkaline cells.
- Typical operating battery life of 1 year.
- Automatic low battery message.
- PC or Field Programmable Features:
  - Transmit Frequency
  - Tone Coded Squelch Encoder (Quiet Call®)
  - Digital Coded Squelch Encoder (Digital Quiet CalI™)
  - DTMF and Selcall ANI
  - Message transmission schedule and limits
- Limited One-year Factory Warranty.

Important Safety Information

NOTICE: The RQA-DB Quick Assist® unit should not be used to report conditions relating to safety of life or property.

To reduce the risk of fire, electric shock or personal injury, follow these basic safety instructions when using this unit.

1. Read and follow all instructions.
2. Disconnect the unit before cleaning. Do not use liquid or aerosol cleaners.
3. Use only approved power sources for the unit.
4. During thunderstorms, avoid contact with this unit and any external antenna system or wiring.
5. If you are unsure whether your installation will be safe, contact an experienced electrician or electronics technician.

RQA-DB Quick Assist® Models and Frequencies

There are RQA-DB Quick Assist® radios available for each of the three most popular professional radio communications bands. The model number appears on a label on the bottom of the case.

MODELS	BAND	FREQUENCY RANGE
RQA-151-DB RQA-151-DB-CANADA	VHF-FM	150 to 165 MHz
RQA-151M-DB	MURS	151.820, 151.880, 151.940, 154.570, 154.600 MHz
RQA-451-DB RQA-451-DB-CANADA	UHF-FM	450 to 470 MHz

Ritron manufactures mobile, portable and base station two-way radios and repeaters for use with RQA-DB Quick Assist®. Ritron pioneered the use of Color Dots on radios to identify frequencies.

Factory-programmed, default RQA-DB Quick Assist® frequencies are:

MODELS	FREQUENCY (MHz)	BANDWIDTH
RQA-151-DB	151.625 (Red Dot)	narrowband
RQA-151M-DB	154.570 (Blue Dot)	wideband
RQA-151-DB-CANADA	151.055	wideband
RQA-451-DB	467.850 (Silver Star)	narrowband
RQA-451-DB-CANADA	458.6625	wideband

See the programming sections of this manual for instructions on changing the RQA-DB Quick Assist® transmit frequency to match an existing radio system.

For Your FREE copy of the Basic PC Programmer
go to: ***www.ritron.com/tools***

Note: Before you begin using the above PC programmer, you will also need the following:

- A USB to Mini B 5-pin cable. You can purchase this cable from Ritron (pn #60201119) or, since this is a commonly used cable, you may already own a compatible cable.
- Your PC will need Windows XP or newer version and have a USB port.

PLEASE NOTE THE FOLLOWING WITH REGARD TO RF EXPOSURE FOR THIS PRODUCT

EXPOSURE TO RADIO FREQUENCY ENERGY:

RQA-151-DB, RQA-151M-DB,
RQA-151-DB-CANADA
RQA-451-DB, RQA-451-DB-CANADA

This product generates radio frequency (RF) energy when the button on the front of the unit is depressed. This product has been evaluated for compliance with the maximum permissible exposure limits for RF energy at the maximum power rating of the unit when using antennas available from RITRON.

For the standard internal antenna, at the 20 cm (7.9 inches) minimum expected separation distance and greater, the maximum RF exposure is well below the General Population/Uncontrolled limits. Antennas other than those available from RITRON have not been tested for compliance and may or may not meet the exposure limits at the distances given. Higher gain antennas are capable of generating higher fields in the strongest part of their field and would, therefore, require a greater separation from the antenna. This product is not to be used by the general public in an uncontrolled environment unless compliance with the Uncontrolled/General Population limits for RF exposure can be assured.

To limit exposure to RF energy to levels below the limit, please observe the following:

- Use only the antenna(s) available from RITRON for these models. **DO NOT** operate the radio without an antenna.
- **DO NOT** activate the transmitter when not actually wishing to transmit. These radios transmit recorded messages of a pre-determined length to prevent continuous transmit times.
- When transmitting, make certain that the distance limits for the particular model in use are observed.
- **DO NOT** allow children to operate the radio.

When used as directed, this series of radios is designed to comply with the FCC's RF exposure limits for "Uncontrolled/General Population". In addition, they are designed to comply with the following Standards and Guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR §§ 2 sub-part J.
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992.
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition.

LISEZ S'IL VOUS PLAÎT LA DÉCLARATION SUIVANTE DE L'EXPOSITION RF POUR CE PRODUIT

Exposition à l'énergie radioélectrique:

RQA-151-DB, RQA-151M-DB,
RQA-151-DB-CANADA
RQA-451-DB, RQA-451-DB-CANADA

Ce produit génère énergie radiofréquence (RF) lorsque le bouton sur le front de l'unité est enfoncé. Ce produit a été évalué pour le respect des limites de l'exposition maximale admissible pour l'énergie RF à la cote de puissance maximale de l'émetteur lorsque vous utilisez des antennes RITRON.

Pour l'antenne interne standard, à la 20 cm (7,9 pouces) minimum prévu à distance de séparation et au-delà, l'exposition RF maximale est inférieure à la Population générale / Uncontrolled limite. Antennes non-RITRON n'ont pas été testés pour la conformité et peuvent ou peuvent ne pas satisfaire les limites d'exposition à des distances donnés. Antennes de gains plus élevés sont capables de générer des champs plus élevés dans la partie plus forte de leur domaine et nécessiteraient donc une plus grande séparation de l'antenne. Ce produit ne doit ne pas être utilisé par le public en général dans un environnement non contrôlé, à moins que la conformité avec la Uncontrolled / les limites de l'ensemble de la Population pour l'exposition RF peuvent être assurés.

Pour limiter l'exposition à l'énergie RF à des concentrations inférieures à la limite, veuillez observer ce qui suit :

- Utilisez uniquement des antennes RITRON pour ces modèles. NE fonctionnent pas sans une antenne de la radio.
- N'utilisez pas l'émetteur lorsque vous ne souhaitez pas transmettre. Ces radios transmettent enregistré des messages d'une durée prédéterminée pour empêcher continu transmettent times.
- Lors de la transmission, s'assurer que les limites de distance pour le modèle particulier en usage sont observées.
- NE laissez pas les enfants pour l'exploitation de la radio.

Lorsqu'il est utilisé conformément aux directives, cette série de radios est conçue pour respecter les limites d'exposition RF pour « Incontrôlée / Population générale ». En outre, ils sont conçus pour respecter les normes et lignes directrices suivantes :

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR §§ 2 sub-part J.
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992.
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition.

FREQUENTLY ASKED QUESTIONS ABOUT RQA-DB QUICK ASSIST® PROGRAMMING

Do I have to program my RQA-DB Quick Assist®?

You may not need to program your RQA-DB at all. If you purchased an RQA-DB unit that is factory programmed to your radio system frequency (check the frequency on your radios and the RQA-DB), you can install the batteries and start using RQA-DB. The factory default voice message is "Assistance Needed". The voice message can be changed, refer to the HOW TO RECORD VOICE MESSAGES section of this manual for details.

Do I need to program every feature?

In many cases, no. The factory pre-programmed settings, explained in the instructions, may meet many of your needs.

How do I program my RQA-DB Quick Assist®?

All programming can be accomplished with the RITRON RQA/RQT PC Programmer software available at www.ritron.com, or by field programming as described in the Field Programming section of this manual.

The programmer software requires Window® XP or greater, and a PC computer with a USB port.

What if I don't find what I need in this manual?

Call Ritron (800-872-1872): we will be glad to help you. For most applications, this manual should cover everything you will need to know. However, the RQA-DB Quick Assist® has more capabilities and features than described here.

Will it harm the RQA-DB Quick Assist® if I program it improperly?

No; however, you may need to erase all programming and start over. Feel free to experiment with the various features and possible configurations.

Can my settings or messages get lost or erased if the battery runs down, or if my RQA-DB Quick Assist® is disconnected?

No. The settings and voice messages you enter are stored in special electronic memory devices in the RQA-DB that do not require power to hold the information. This means that if the batteries run down or if you remove them, you will not need to reprogram the RQA-DB. All your settings and messages will be there for you when you install fresh batteries.

What if I need more range?

To increase the range of your RQA-DB Quick Assist® transmissions, we suggest you first relocate the unit. Ritron also manufactures radio repeaters to increase the range not only for your RQA-DB, but also for your entire radio system.

What is my Radio System Frequency?

Contact your radio provider, or the User Manual for your 2-way radios, to determine your radio system frequency.

Do I need to program my RQA-DB Quick Assist® transmitter frequency?

The original factory-programmed transmitter frequency of your RQA-DB is marked on the outside of the shipping box. If the RQA-DB frequency matches your radio system frequency, and if the RQA-DB has not been reprogrammed since it left the factory, you will not have to program the transmitter frequency.

Refer to the RQA-DB QUICK ASSIST® DEFAULT PROGRAMMING section of this manual for default programming.

What is Quiet Call® Sub Audible Coded Squelch?

The RQA-DB Quick Assist® radio transmitter is compatible with two standard communications industry sub audible signaling formats: QC (Quiet Call® Interference Eliminator), and DQC (Digital Quiet Call® Interference Eliminator). Both Quiet Call® formats unlock receivers programmed to require these codes, they screen out interference from other radio systems operating on your same frequency.

QC Quiet Call® is Ritron's trade name for what the communications industry calls sub-audible (below the range of human hearing) tone squelch, or CTCSS (Continuous Tone Coded Subaudible Squelch) or Interference Eliminator. Other radio manufacturers use different trade-names for essentially the same system. You may program a specific QC code into your RQA-DB to transmit with the voice messages, which will "unlock" the receivers in your radio system.

DQC Digital Quiet Call® is Ritron's digital coded squelch, and works the same as QC, except it is a digital code that is transmitted with the voice messages.

Do I need to program my RQA-DB Quick Assist® with a Quiet Call Code?

Your radio system may or may not use coded squelch signaling. If you have programmed the RQA-DB to match your radio frequency, and your radios are not receiving RQA-DB transmissions unless the "monitor" or "test" button is pressed on your radio, your system is probably using Coded Squelch. Refer to your radio manual, or contact your radio dealer or Ritron if you are unsure about this issue.

If your RQA-DB was previously programmed with a Quiet Call® code and you need to remove it, follow the programming instructions, using No Tone code, "44", as shown in the table.

Do I need to program my RQA-DB Quick Assist® with a Digital Quiet Call code?

If your radio system does not use Digital Quiet Call®, or any other trade name equivalent, you will not need to program a Digital Quiet Call® code.

What is the purpose of testing the RQA-DB Quick Assist® radio transmitter?

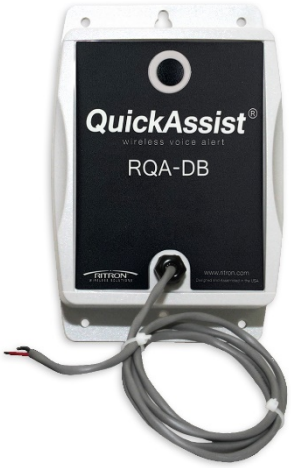
After programming your radio, your RQA-DB will transmit on the same frequency as your radio receivers, using any coded squelch signals required for your radio system.

Do I need to test my RQA-DB Quick Assist® Transmitter?

Yes; performing this test now will save you time and confusion later.

INSTALLING THE RQA-DB QUICK ASSIST® TRANSMITTER AND RPB-1AG PUSH-BUTTON

IMPORTANT: Prior to installing the RQA-DB Quick Assist® transmitter, it is important to first program you RQA-DB to match (talk to) your 2-way radios. Re-programming requires the removal of the RQA-DB from its installed location, which can be time consuming and frustrating. Refer to the Field Programming and/or Programmable Features sections of this manual for programming instructions.



RQA-DB
Quick Assist®
Transmitter

1. **Check the contents of your RQA-DB transmitter and RPB-1AG push-button.**
   - RQA-DB Quick Assist® transmitter with 3 foot long cable.
   - RPB-1AG heavy duty push-button with 2 foot long cable, gasket, wire nuts and mounting screws.
2. **Install 6 new AA Alkaline batteries into the internal battery holder.**
   - Screw the case halves together. Be sure the case halves are pulled tightly together for a good weather seal.
3. **Determine the location of your RPB-1AG push-button.**
   - The RPB-1AG must be in a location that will allow you to drill through the wall without obstruction on either side.
4. **Test the radio from this location to be sure you get the necessary radio coverage.**

   Before beginning installation it must be determined that you will get adequate radio coverage. Test radio coverage by activating the RQA-DB transmitter while a second radio-equipped person receives the transmission at the furthest point you will need to cover. The RQA-DB transmitter can be activated by shorting the 2 wires on the 3 foot cable.
   - The RQA-DB must be within 3 feet of where the RPB-1AG wires will come through the wall.
   - Temporarily mount the RQA-DB using the top keyhole slot.
   - Avoid mounting to metal structures.
   - Install as high as possible.
   - Be sure the RQA-DB is in a vertical position.
   - Be aware that metal or wires near the RQA-DB can block or absorb radio transmissions.


RPB-1AG
Heavy Duty
Push-Button

5. **Install the RPB-1AG push-button.**
   - Drill a hole through the wall large enough to feed the RPB-1AG cable through to the inside.
   - Place the RPB-1AG gasket onto the back of the push-button plate.
   - Feed the RPB-1AG cable through the wall and weather seal the hole surrounding the cable.
   - Mount the RPB-1AG to the wall using screws appropriate for the mounting surface. The screws included with the RPB-1AG are for securing to a standard outlet box.
6. **Permanently mount the RQA-DB Quick Assist®**
   - Using screws appropriate for the mounting surface, mount through either the four (4) corner mounts or the top and bottom keyhole slots.
   - Adhere to all instructions outlined in Step 4.
7. **Connect the RQA-DB to the RPB-1G.**
   - Using the wire nuts included with the RPB-1AG, connect the RQA-DB to the RPB-1AG.
   - Be sure to position the wires an wire nuts in an area where they will not be susceptible to being disconnected.
   - Press the RPB-1AG push-button and check to see that it is activating the RQA-DB transmitter.

I already have a push-button installed on my building. Can I use this to activate the RQA-DB?

Yes, as long as it is not also connected to anything other than the RQA-DB. The RQA-DB is looking for a simple switch closure and cannot tolerate any AC or DC voltage on the push-button input.

What should I do if I did not get adequate radio coverage as described in Step 4?

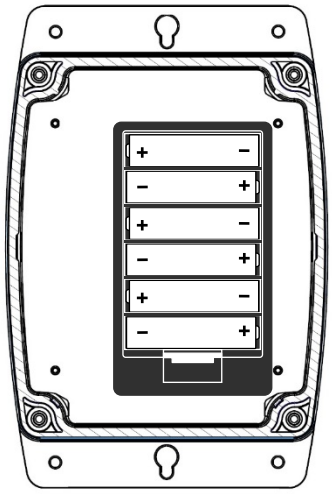
Following the instructions in Step 4, find a location for the RQA-DB that provides the necessary radio coverage. This is where you will want to mount the RQA-DB transmitter. You will then need to install a 2-conductor cable between the RQA-DB and the RPB-1AG.

Should you need additional help with your installation, Call 800-872-1872 or email us at Sales_Info@ritron.com

Installation / Replacement of Batteries

1. Remove the RQA-DB Quick Assist® from the wall or mounting surface.
2. Remove the four corner screws holding the case halves together, located on the back side of the enclosure.
3. Separate the case halves and disconnect the battery holder from the radio printed circuit board by separating the in-line connectors.
4. Remove the lid on the battery holder by pressing the tab at the bottom, and then remove the old batteries.
5. Install the new batteries. Be sure to observe the correct polarity of the batteries, shown in the bottom of the battery holder.
6. Install the battery holder lid and connect the two polarized, in-line battery connectors.
7. Press the wired push button and test the RQA-DB by listening on a receiving radio.
8. Secure the case halves with the four corner screws and re-install on the wall or mounting surface.

NOTE: Be sure to properly dispose of the used batteries removed from the RQA-DB Quick Assist®.



Automatic Low Battery Alert Message

By factory default, if the battery voltage drops below approximately 6 Volts, the RQA-DB transmits a factory prerecorded message, "Quick Assist Battery", at the conclusion of each transmission. When this occurs, replace the batteries promptly — within a day or so.

What is the purpose of recording a unique Voice Phrase for the Low Battery Message?

When it senses the installed batteries are nearly run down, the RQA-DB will transmit the factory- programmed message: "Quick Assist Battery". If you maintain several RQA-DB transmitters within radio range of each other, you may customize this feature to easily determine which unit needs new batteries.

Do I need to program this feature?

If you use only one RQA-DB in any area, or if you regularly change RQA-DB batteries, the factory programmed message may be sufficient for your application.

Care and Maintenance

Moisture: The RQA-DB Quick Assist® is highly weather- resistant in outdoor environments. Do not immerse the unit in water.

Temperature: The RQA-DB is designed to operate between -22 and +140 degrees Fahrenheit. Like all electronic equipment, RQA-DB should not be subjected to extreme heat. A shaded area is an ideal outdoor location.

VibrationslShocks: Though the RQA-DB is designed to be rugged, it cannot be expected to survive extreme abuse.

Chemicals: Do not use harsh, corrosive or abrasive chemicals to clean the RQA-DB case; use only a cloth moistened with water.

Do not attempt to clean the printed circuit board inside the housing.

Batteries: Use only fresh, new alkaline batteries when programming RQA-DB. Acceptable brands and types are: Duracell MX1500B, Eveready E91, Rayovac 815 or equivalent.

Estimated Battery Life: Starting with a fresh set of AA alkaline batteries, RQA-DB can transmit about 7,000 voice messages over a period of one year before the batteries will need to be replaced.

RQA-151M-DB and RQA-152M-DB Disclaimer

Ritron models RQA-151M-DB and RQA-152M-DB are license-free radios sold only in the USA. These models can only operate on the 5 MURS frequencies available through Field or PC programming.

IDENTIFICATION OF RQA-DB QUICK ASSIST® CONTROLS AND CONNECTIONS

1 Battery Holder

The battery holder accommodates the six (6) standard AA alkaline cells required to power the RQA-DB.

NOTE: Always install a fresh set of alkaline batteries before programming the unit.

2 Battery Connector

In-line connector between the printed circuit board and the battery holder.

3 Push Button Cable Connection

Connect the RPB-1AG push-button to this 3-foot cable. When the push button is pressed the RQA-DB transmits your pre-recorded voice message.

4 Antenna Jumper

This jumpers allows connection to the internal antenna (jumper up) or to the SMB RF Test Connector (jumper down).

5 SMB RF Test Connector

This SMB connector is used for radio testing when the Antenna Jumper is in the SMB position.

6 Internal Antenna

The internal antenna radiates radio signals when the Antenna Jumper is in the Antenna position.

7 Microphone

Microphone for recording voice messages.

8 External Audio Input

Allows input to the RQA-DB voice recorder from an external audio source, such as the Line Out audio from your computer.

9 Program Button

Press this button to field program the RQA-DB and to initiate voice recording.

10 Program Display

7-segment LED display used to field program the RQA-DB.

11 Red LED

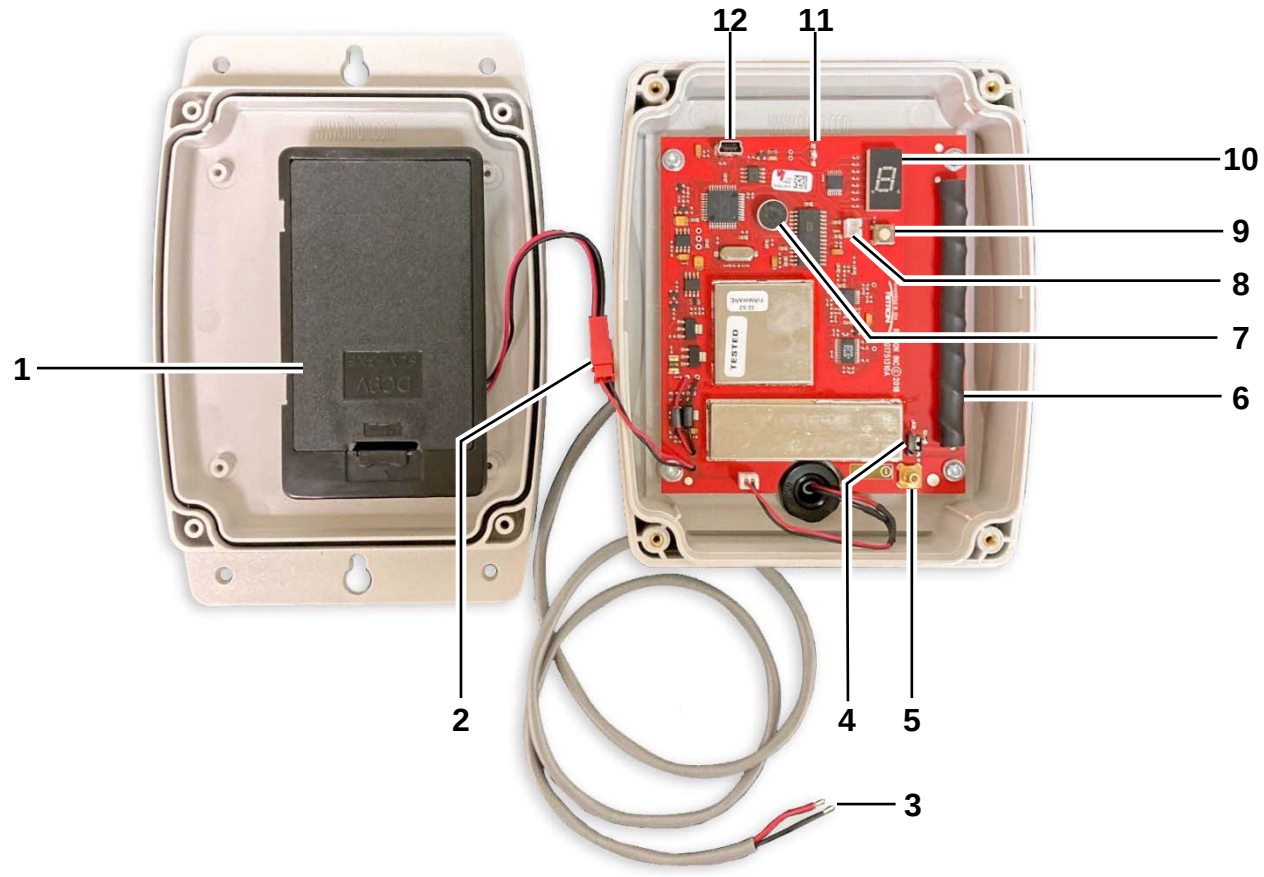
The red LED is lit whenever the RQA-DB is transmitting a message.

12 USB Programming Connector

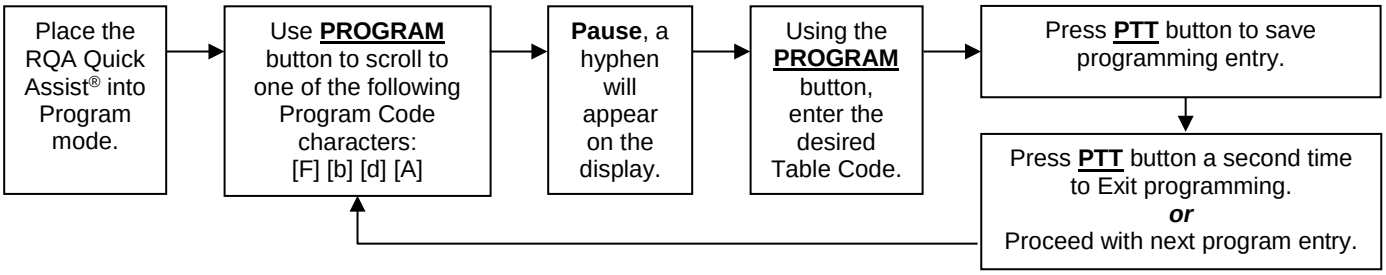
Connects the RQA-DB to the USB port on your computer for programming.

IMPORTANT: Do not remove any other fasteners or further disassemble the RQA-DB unit; doing so risks damage to the unit and voiding the manufacturer's warranty.

FIG-1: CONTROLS & CONNECTIONS



RQA-DB Quick Assist® Field Programming Overview



Program Codes **Table Codes**

F } Enter a 1-digit, 2-digit or 3-digit Frequency code from Table 1.

b } Enter a 2-digit Quiet Call code from Table 2 or a 3-digit Digital Quiet Call code from Table 3.

d } ***For Encode ANI:***

Enter a **1** plus any 3–9 digit DTMF ANI Code ***or***

Enter a **2** plus any 3–7 digit Selcall ANI Code

A } Enter any RQA-DB Feature code from Table 4 to:

- Enable or disable the TX Alert Tone.
- Enable or disable Low Battery Alert message.
- Enable or disable Press and Hold Reset function.
- Record and Playback Assist, Reset, Battery and Escalate messages.
- Program how many times the Assist message will be transmitted.
- Program the time between Assist message transmissions.
- Program how many times the Assist message is repeated on each transmission.
- Program the RQA to append the Assist message with an Escalate message after a number of transmissions.
- Program the time between Escalate message transmissions.
- Program a 2nd Escalate channel to transmit Escalate message transmissions to alternate radio users.
- Program how many times the Reset message is repeated on each transmission.
- Reset RQA-DB Quick Assist® to Factory default programming.
- Readout codes currently programmed into the RQA-DB.

How to Field Program Frequency and Tone Codes

To match other radios, the owner can select Frequency, Tone and DQC Codes from Table 1, Table 2 and Table 3. In our example, we will program an RQA-151-DB to operate on the "Red Dot" frequency of 151.625 MHz with 100.0 Hz tone.

NOTES:

03	1. Refer to Table 1 to determine the two-digit frequency code and write it down.
12	2. Refer to Table 2 to determine the two-digit tone code for 100.0 Hz and write it down.
	3. Loosen the (4) screws in the rear corners of the case.
	4. Separate the case front from the case back, leaving the batteries connected to the radio. Make sure the unit has batteries installed. **NOTE:** The voltage of the batteries must be greater than 6 VDC to program properly.
	5. Press and **HOLD** the **Program** button located next to the program display.
	6. Press and **RELEASE** the **ON/PTT** button on the front of the unit while continuing to hold the **Program** button. A "P" will appear on the program display.
	7. Release the **Program** button after a hyphen appears on the program display. The radio is now in program mode.
	8. Click the **Program** button until the program display shows the Program Code "F". Pause—the radio show a hyphen across the center of the display to indicate that it is ready to accept the 2 or 3-digit Frequency code from Table 1.
	9. Enter the 1st digit of the frequency code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
FREQUENCY CODE 	10. Enter the 2nd digit of the frequency code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
	11. If necessary, enter the 3rd digit of the frequency code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit
 	12. Press and release the wired push-button to save your programming. A hyphen will flash 3 times on the program display. The radio is now ready for another program entry. **NOTE:** If you attempt to save an incorrect code an "E" will appear on the display. Check the digits you are attempting to enter, then re-enter. This will also occur if the radio frequency has been PC programmed to something other than one of the table codes from Table 1.
	13. Click the Program button until the program display shows the Program Code "b". Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the 2-digit Quiet-Call code or 3-digit Digital Quiet-Call code from Table 2 or Table 3.
	14. Enter the 1st digit of the tone code (or 1st digit of the DQC code) by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
TONE CODE 	15. Enter the 2nd digit of the tone code (or 2nd digit of the DQC code) by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
	16. **FOR DQC CODES ONLY** – Enter the 3rd digit of the DQC code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
 	17. Press and release the wired push-button to save your programming. A hyphen will flash 3 times on the program display. The radio is now ready for another program entry. **NOTE:** If you attempt to save an incorrect code an "E" will appear on the display. Check the digits you are attempting to enter, then re-enter.
	18. Once you have made your final program entry, press the wired push-button a final time to turn the radio off. Turn the radio back on for normal operation.

NOTE: If a push-button switch is not connected simply short the wires on the cable to save a programming entry.

TABLE 1: PROGRAMMABLE USA FREQUENCY CODES

UHF Business Band Models

Code	Frequency	Color Dot	BW
09	469.2625		12.5 †
10	462.5750	White Dot	12.5 †
11	462.6250	Black Dot	12.5 †
12	462.6750	Orange Dot	12.5 †
13	464.3250		12.5 †
14	464.8250		12.5 †
15	469.5000		12.5 †
16	469.5500		12.5 †
17	463.2625		12.5 †
18	464.9125		12.5 †
19	464.6000		12.5 †
20	464.7000		12.5 †
21	462.7250		12.5 †
22	464.5000	Brown Dot	12.5
23	464.5500	Yellow Dot	12.5
24	467.7625	J	12.5
25	467.8125	K	12.5
26	467.8500	Silver Star	12.5
27	467.8750	Gold Star	12.5
28	467.9000	Red Star	12.5
29	467.9250	Blue Star	12.5
30	461.0375		12.5
31	461.0625		12.5
32	461.0875		12.5
33	461.1125		12.5
34	461.1375		12.5
35	461.1625		12.5
36	461.1875		12.5
37	461.2125		12.5
38	461.2375		12.5
39	461.2625		12.5
40	461.2875		12.5
41	461.3125		12.5
42	461.3375		12.5
43	461.3625		12.5
44	462.7625		12.5
45	462.7875		12.5
46	462.8125		12.5
47	462.8375		12.5
48	462.8625		12.5
49	462.8875		12.5
50	462.9125		12.5
51	464.4875		12.5
52	464.5125		12.5
53	464.5375		12.5
54	464.5625		12.5
55	466.0375		12.5
56	466.0625		12.5
57	466.0875		12.5
58	466.1125		12.5
59	466.1375		12.5
60	466.1625		12.5
61	466.1875		12.5
62	466.2125		12.5
63	466.2375		12.5
64	466.2625		12.5
65	466.2875		12.5

UHF Business Band Models

Code	Frequency	Color Dot	BW
66	466.3125		12.5
67	466.3375		12.5
68	466.3625		12.5
69	467.7875		12.5
70	467.8375		12.5
71	467.8625		12.5
72	467.8875		12.5
73	467.9125		12.5
74	469.4875		12.5
75	469.5125		12.5
76	469.5375		12.5
77	469.5625		12.5
78	462.1875		12.5
79	462.4625		12.5
80	462.4875		12.5
81	462.5125		12.5
82	467.1875		12.5
83	467.4625		12.5
84	467.4875		12.5
85	467.5125		12.5
86	451.1875		12.5
87	451.2375		12.5
88	451.2875		12.5
89	451.3375		12.5
90	451.4375		12.5
91	451.5375		12.5
92	451.6375		12.5
93	452.3125		12.5
94	452.5375		12.5
95	452.4125		12.5
96	452.5125		12.5
97	452.7625		12.5
98	452.8625		12.5
99	456.1875		12.5
100	456.2375		12.5
101	456.2875		12.5
102	468.2125		12.5
103	468.2625		12.5
104	468.3125		12.5
105	468.3625		12.5
106	468.4125		12.5
107	468.4625		12.5
108	468.5125		12.5
109	468.5625		12.5
110	468.6125		12.5
111	468.6625		12.5
112	456.3375		12.5
113	456.4375		12.5
114	456.5375		12.5
115	456.6375		12.5
116	457.3125		12.5
117	457.4125		12.5
118	457.5125		12.5
119	457.7625		12.5
120	457.8625		12.5
121	461.3175		12.5
122	464.8375		12.5

VHF Business Band Models

Code	Frequency	Color Dot	BW
03	151.6250	Red Dot	12.5 †
04	151.9550	Purple Dot	12.5 †
05	151.9250		12.5 †
06	154.5400		12.5 †
07	154.5150		12.5 †
08	154.6550		12.5 †
09	151.6850		12.5 †
10	151.7150		12.5 †
11	151.7750		12.5 †
12	151.8050		12.5 †
13	151.8350		12.5 †
14	151.8950		12.5 †
15	154.4900		12.5 †
16	151.6550		12.5 †
17	151.7450		12.5 †
18	151.8650		12.5 †
24	151.7000		12.5
25	151.7600		12.5
26	152.7000		12.5 †
27	152.8850		12.5
28	152.9150		12.5
29	152.9450		12.5
30	151.5125		12.5
31	154.5275		12.5
32	153.0050		12.5
33	158.4000		12.5
34	158.4075		12.5

*VHF MURS Models***

Code	Frequency	Color Dot	BW
01	154.600	Green Dot	25.0
02	154.570	Blue Dot	25.0
19	151.820	MURS	12.5
20	151.880	MURS	12.5
21	151.940	MURS	12.5
22	154.600	MURS	12.5
23	154.570	MURS	12.5

Notes

** MURS models do not require an FCC license. All other models require an FCC license.

† Frequency code was 25 KHz bandwidth prior to the 2013 FCC Narrowband Mandate.

- BW is the bandwidth in kHz.
- 12.5 kHz indicates a narrow band channel, 25 kHz indicates a wide band channel.
- If the RQA-DB has been PC programmed to a non-table frequency it cannot be changed via field programming. Code 999 will appear when read out.

TABLE 1: PROGRAMMABLE CANADIAN FREQUENCY CODES

Canada Models UHF Business Band

Code	Frequency	Color Dot	BW
01	458.6625		25
02	469.2625		25

Canada Models VHF Business Band

Code	Frequency	Color Dot	BW
01	151.055		25
02	151.115		25

TABLE 2: PROGRAMMABLE QC TONE CODES

Code	Frequency	Code	Frequency	Code	Frequency	Code	Frequency
01	67.0	14	107.2	27	167.9	40	159.8
02	71.9	15	110.9	28	173.8	41	165.5
03	74.4	16	114.8	29	179.9	42	171.3
04	77.0	17	118.8	30	186.2	43	177.3
05	79.7	18	123.0	31	192.8	44	**No Tone**
06	82.5	19	127.3	32	203.5	45	183.5
07	85.4	20	131.8	33	210.7	46	189.9
08	88.5	21	136.5	34	218.1	47	196.6
09	91.5	22	141.3	35	225.7	48	199.5
10	94.8	23	146.2	36	233.6	49	206.5
11	97.4	24	151.4	37	241.8	50	229.1
12	100.0	25	156.7	38	250.3	51	254.1
13	103.5	26	162.2	39	69.4	00	**No Tone**

TABLE 3: PROGRAMMABLE DIGITAL DQC TONE CODES

Code	Code	Code	Code	Code	Code	Code	Code
023	072	152	244	311	412	466	631
025	073	155	245	315	413	503	632
026	074	156	246	325	423	506	645
031	114	162	251	331	431	516	654
032	115	165	252	332	432	523	664
036	116	172	255	343	445	532	703
043	122	174	261	346	446	546	712
047	125	205	263	351	452	565	723
051	131	212	265	356	454	606	731
053	132	223	266	364	455	662	732
054	134	225	271	365	462	612	734
065	143	226	274	371	464	624	743
071	145	243	306	411	465	627	754

How to Field Program DTMF or Selcall Encode ANI (Transmit) Codes

Each RQA-DB Quick Assist® can be uniquely identified by programming for DTMF or Selcall encode ANI (transmit) operation. The user is able to field program the radio for any 3-9 digit DTMF or 3-7 digit Selcall sequence. The radio will transmit the ANI code at the beginning of each transmission. In our example we will program an RQA-151 to operate with a DTMF ANI Code of "547".

547		1. Write down the desired DTMF or Selcall ANI code.
		2. Loosen the (4) screws in the rear corners of the case.
		3. Separate the case front from the case back, leaving the batteries connected to the radio. Make sure the unit has batteries installed. **NOTE:** The voltage of the batteries must be greater than 6 VDC to program properly.
		4. Press and **HOLD** the **Program** button located next to the program display.
		5. Press and **RELEASE** the **ON/PTT** button on the front of the unit while continuing to hold the **Program** button. A "P" will appear on the program display.
		6. Release the **Program** button after a hyphen appears on the program display. The radio is now in program mode.
		7. Click the **Program** button until the program display shows the Program Code "d". Pause—the radio show a hyphen across the center of the display to indicate that it is ready to accept a 3- 9 digit DTMF or 3-7 digit Selcall encode ANI sequence.
	***or***	8. **FOR DTMF ANI CODES TO BE TRANSMITTED WITH ALL MESSAGES** – Enter a "1"
	***or***	**FOR SELCALL ANI CODES TO BE TRANSMITTED WITH THE ALL MESSAGES** – Enter a "2"
		**TO REMOVE ALL DTMF AND SELCALL ANI CODES**– Enter a "0"
DTMF OR SELCALL CODE 		9. Enter the 1st digit of the DTMF or Selcall code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
		10. Enter the 2nd digit of the DTMF or Selcall code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
		11. Enter the 3rd digit of the DTMF or Selcall code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit. Continue entering up to nine DTMF digits or seven Selcall digits.
 		12. Press and release the wired push-button to save your programming. A hyphen will flash 3 times on the program display. The radio is now ready for another program entry. **NOTE:** If you attempt to save an incorrect code an "E" will appear on the display. Check the digits you are attempting to enter, then re-enter.
		13. Once you have made your final program entry, press the wired push-button a final time to turn the radio off. Turn the radio back on for normal operation.

NOTE: If a push-button switch is not connected simply short the wires on the cable to save a programming entry.

How to Field Program Feature Codes

The RQA-DB Quick Assist® can be field programmed for a number of advanced features. Refer to **Table 4** for the two or three digit codes available for field programming. In our example we will program an RQA-151-DB to transmit the Assist message 3 times with 30 seconds between each transmission.

613
623

1. Refer to Table 4 to determine the two or three-digit feature codes and write them down.
2. Loosen the (4) screws in the rear corners of the case.
3. Separate the case front from the case back, leaving the batteries connected to the radio. Make sure the unit has batteries installed.

   NOTE: The voltage of the batteries must be greater than 6 VDC to program properly.
4. Press and **HOLD** the **Program** button located next to the program display.

5. Press and **RELEASE** the **ON/PTT** button on the front of the unit while continuing to hold the **Program** button. A "P" will appear on the program display.

6. Release the **Program** button after a hyphen appears on the program display. The radio is now in program mode.

7. Click the Program button until the program display shows the Program Code "A". Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept a 2-digit or a 3-digit Feature code.

FEATURE CODE

8. Enter the 1st digit of the feature code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.

9. Enter the 2nd digit of the feature code (if necessary) by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.

10. Enter the 3rd digit of the feature code (if necessary) by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.

11. Press and release the wired push-button to save your programming. A hyphen will flash 3 times on the program display. The radio is now ready for another program entry.

    NOTE: If you attempt to save an incorrect code an "E" will appear on the display. Check the digits you are attempting to enter, then re-enter.

FEATURE CODE

12. Enter the 1st digit of the feature code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.

13. Enter the 2nd digit of the feature code (if necessary) by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.

14. Enter the 3rd digit of the feature code (if necessary) by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.

15. Press and release the wired push-button to save your programming. A hyphen will flash 3 times on the program display. The radio is now ready for another program entry.

    NOTE: If you attempt to save an incorrect code an "E" will appear on the display. Check the digits you are attempting to enter, then re-enter.
16. Once you have made your final program entry, press the wired push-button a final time to turn the radio off. Turn the radio back on for normal operation.

NOTE: If a push-button switch is not connected simply short the wires on the cable to save a programming entry.

TABLE 4: FEATURE CODES

Code	Feature	Key	Description
Special Features			
21	Reset to Factory Defaults		Resets all RQA-DB features that can be field programmed to Factory default programming.
22	Display Radio Revision		Quick Assist will display a sequence of 6 digits to identify model and operating code revision. This is helpful when troubleshooting the radio.
23	Disable TX Alert Tone		Disables the TX Alert Tone.
231	Enable Short Alert Tone		Enables a shorter TX Alert Tone that is sent at the start of each transmitted message. (5)
24	Enable TX Alert Tone Low	√	Enables a low TX Alert Tone that is sent at the start of each transmitted message.
25	Enable TX Alert Tone High		Enables a high TX Alert Tone that is sent at the start of each transmitted message.
26	Disable Low Battery Alert		Disables Low Battery Alert.
27	Enable Low Battery Alert	√	Enables the Low Battery Alert message that is sent at the end of each transmitted message whenever the batteries are in need of replacement.
28	Disable Press and Hold Reset	√	Disables Press and Hold Reset.
29	Enable Press and Hold Reset		Enables Press and Hold Reset. Holding down the Call Button for 5 seconds will cause the Quick Assist to transmit the Reset message, then turn-off.
20x	Message delay		Delay between time TX turns on and a Message is sent. 200 = no delay 201 = ½ second √ 202 = 1 second 203 = 1½ second 204 = 2 second 205 = 2½ second 206 = 3 second 207 = 3½ second 208 = 4 second 209 = 4½ second
Record Voice Messages			
31	Reset Message (12 sec. max)		Once recorded, the message is transmitted when the Quick Assist is turned-off using the Press and Hold Reset feature.
32	Assist Message (12 sec. max)		Once recorded, the message is transmitted when the Call Button is pressed, and then re-transmitted per the programmed schedule.
33	Low Battery Message (2 sec. max)		Once recorded, the message is sent at the end of each transmitted message if low battery voltage is detected.
34	Escalate Message (4 sec. max)		Once recorded, the message is appended to the Assist message starting at a programmed number in the schedule.
Play Voice Messages			
41	Reset Message		Transmits the recorded message for review.
42	Assist Message		
43	Low Battery Message		
44	Escalate Message		
2nd Escalate Channel			
51xxx	2nd Escalate Table Frequency		When the radio transmit schedule has reached the point of escalation, the Escalate message will be sent on both the normal radio frequency and on a 2nd Escalate frequency. Refer to Table 1 for the 2 or 3-digit Table Frequency to be entered. Enter a table code "0" to delete all 2nd Escalate Channel programming. (5)
52xxx	2nd Escalate QC or DQC Code		Enter a 2-digit QC or 3-digit DQC code to be used with the 2nd Escalate frequency. Refer to Table 2 for QC Tone Codes or Table 3 for digital DQC Tone Codes. (5)
53xxxxxxxxx	2nd Escalate DTMF ANI (9-digits max)		Enter a DTMF ANI string of 3-9 digits to be sent at the start of each transmission on the 2nd Escalate frequency. (5)
54xxxxxxx	2nd Escalate Selcall ANI (7-digits max)		Enter a Selcall ANI string of 3-7 digits to be sent at the start of each transmission on the 2nd Escalate frequency. (5)

Code	Feature	Key	Description
Assist Message Operation			
61x	Number of Message Transmissions		Sets the number of times the Assist Message wil be transmitted on a scheduled basis before the Quick Assist turns off.
			611 = 1 time
		√	612 = 2 times
			613 = 3 times
			614 = 4 times
			615 = 5 times
			616 = 6 times
			617 = 7 times
			618 = 8 times
			619 = repeat forever
62x	Time between transmissions		Sets the length of time between Assist message transmissions.
			621 = on changes only
			622 = 15 sec
		√	623 = 30 sec
			624 = 1 min
			625 = 1 ½ min
			626 = 2 min
			627 = 3 min
			628 = 4 min
			629 = 5 min
			620 = 10 min
63x	Repeat Message		Sets the number of times the Assist Message is played on each transmission.
		√	631 = 1 time
			632 = 2 times
			633 = 3 times
			634 = 4 times
			635 = 5 times
			636 = 6 times
			637 = 7 times
			638 = 8 times
			639 = 9 times
64x	Append Escalation Message		Sets the Assist Message transmission on which the Escalation Message is appended
			641 = Always append
			642 = Append on 2nd transmission
		√	643 = Append on 3rd transmission
			644 = Append on 4th transmission
			645 = Append on 5th transmission
			646 = Append on 6th transmission
			647 = Append on 7th transmission
			648 = Append on 8th transmission
			649 = Append on 9th transmission
			640 = Never append
65x	Time between Escalate transmissions		Sets the length of time between Escalated Assist message transmissions. (5)
			651 = Same as normal Assist message time.
			652 = 15 sec
		√	653 = 30 sec
			654 = 1 min
			655 = 1 ½ min
			656 = 2 min
			657 = 3 min
			658 = 4 min
			659 = 5 min
			650 = 10 min
Reset Message Operation			
73x	Repeat Message		Sets the number of times the Reset Message is played on each transmission.
		√	731 = 1 time
			732 = 2 times
			733 = 3 times
			734 = 4 times
			735 = 5 times
			736 = 6 times
			737 = 7 times
			738 = 8 times
			739 = 9 times

Code	Feature	Key	Description
Programming Readout Codes			
81	Frequency Code		Display will sequentially show the programmed 2 or 3-digit Frequency Code. (1)
82	QC or DQC Tone Code		Display will sequentially show the programmed 2-digit QC Tone Code or 3-digit DQC Tone Code. (2)
83	DTMF or Selcall ANI		Display will sequentially show the programmed 3-9 digit DTMF or 3-7 digit Selcall Code. (3)
851	2nd Escalate Frequency		Display will sequentially show the programmed 2 or 3-digit Frequency Code. (1)(5)
852	2nd Escalate QC or DQC Tone Code		Display will sequentially show the programmed 2-digit QC Tone Code or 3-digit DQC Tone Code. (2)(5)
853	2nd Escalate DTMF ANI		Display will sequentially show the programmed 3-9 digit DTMF Code. (3)(5)
854	2nd Escalate Selcall ANI		Display will sequentially show the programmed 3-7 digit Selcall Code. (3)(5)
861	Number of Assist Messages		Readout Assist Message Number of message transmissions
862	Assist Message Repeat Time		Readout Assist Message Time between transmissions
863	Assist played each transmission		Readout Assist Message Number of times message is played on each transmission
865	Escalate Message Repeat Time		Readout Escalate Message Time between transmissions (5)
873	Reset played each transmission		Readout Reset Message Number of times message is played on each transmission

KEY: √ The RQA-DB is set from the factory with these options **enabled**.

NOTES:
(1) 999 indicates a non-table frequency.
(2) If DCS is inverted you will get an ERROR indication
(3) If “0” is displayed the radio has not been programmed for DTMF or Selcall ANI.
(4) ERROR indication will be displayed if not a Field Programming value (has been PC programmed)
(5) Feature available on radio revision 32.52 or higher. Enter “Display Radio Revision” code A22, the last 4 digits displayed indicate radio revision.

How to Record Voice Messages

Recite your voice message a number of times before recording to be sure it can be completed in the time allowed. For best results speak directly into the microphone in a slow, clear voice. In our example we will program an RQA-151-DB Assist message.

32	1. Refer to Table 4 to determine the two-digit Record Voice Message Code and write it down.
	2. Loosen the (4) screws in the rear corners of the case.
	3. Separate the case front from the case back, leaving the batteries connected to the radio. Make sure the unit has batteries installed. **NOTE:** The voltage of the batteries must be greater than 6 VDC to program properly.
	4. Press and **HOLD** the **Program** button located next to the program display.
	5. Press and **RELEASE** the **ON/PTT** button on the front of the unit while continuing to hold the **Program** button. A "P" will appear on the program display.
	6. Release the **Program** button after a hyphen appears on the program display. The radio is now in program mode.
	7. Click the Program button until the program display shows the Program Code "A". Pause—the radio show a hyphen across the center of the display to indicate that it is ready to accept a 2-digit Record Voice Message Code.
VOICE MESSAGE CODE 	8. Enter the 1st digit of the Record Voice Message Code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
	9. Enter the 2nd digit of the Record Voice Message Code by clicking the Program button until the program display shows the desired number. Pause—the radio will show a hyphen across the center of the display to indicate that it is ready to accept the next digit.
	10. Press and release the **ON/PTT** button to save the 2-digit Record Voice Message Code and initiate the voice record process. A hyphen will appear on the Program display. NOTE: If you attempt to enter an incorrect code an "E" will appear on the display. Check the digits you are attempting to enter, then re-enter.
	
	11. Press and Hold the **Program** Button and wait for the red LED to light. Speak directly into the RQA-DB microphone in a slow, clear voice.
	12. Release the **Program** button when you have finished recording the message. A hyphen will flash 3 times on the program display and the red LED will go off. The radio is now ready to record another message, or for another program entry.
	13. Once you have recorded your final message, press the wired push-button a final time to turn the radio off. Turn the radio back on for normal operation.

NOTE: If a push-button switch is not connected simply short the wires on the cable to save a programming entry.

Test Your RQA-DB Quick Assist® Programming

Once your RQA-DB has been programmed it will transmit on the same frequency as your radio receivers, and will transmit any coded squelch signals required for your radio system. Before installing the RQA-DB you should test for communication with your radio receivers.

To test the RQA-DB radio transmitter:

1. Turn on your radio receiver.
2. Press the wired push button switch.
3. RQA-DB will transmit the RQA "Assistance needed" message, which you should be able to hear on your radio receiver.
4. If you do not hear the message, you have probably not properly programmed the RQA-DB transmitter frequency or the Quiet Call® Coded Squelch. In this case, repeat the programming and perform this test again.

Depending upon your programming, the following sequence describes what you should hear with your radio receiver:

1. The RQA-DB transmitter is activated on the Transmit Frequency and QC or DQC Code programmed when the wired push-button is pressed and released.
2. The RQA-DB will broadcast silence for the programmed Message Delay on TX Time
3. The RQA-DB will broadcast the TX Alert Tone if it has been programmed.
4. The RQA-DB will broadcast the recorded Assist Message.
5. The Assist Message will be repeated for the number of times programmed for Repeat Message on each Transmission.
6. The RQA-DB transmitter will turn OFF and the RQA-DB will wait for the period of time programmed for Wait Time between Transmissions.
7. If Repeat Message Transmissions has been programmed for more than one transmission, the RQA-DB transmitter will again be activated and Steps 1 – 7 will be repeated for the programmed number of transmissions.
8. If an Escalation Message has been programmed the Assist Message will be appended with the Escalation Message on the programmed transmission. If a 2nd Escalation Channel has been programmed the Assist Message appended with the Escalation Message will also be transmitted on the 2nd Escalation Channel frequency.

RQA-DB Quick Assist® Default Programming

Transmit Frequency

Model	Code	Frequency	BW
RQA-151-DB	F03	151.625 MHz	NB
RQA-151M-DB	F02	154.570 MHz	WB
RQA-151-DB-CANADA	F01	151.055 MHz	WB
RQA-451-DB	F26	467.850 MHz	NB
RQA-451-DB-CANADA	F01	458.6625 MHz	WB

QC/DQC Code	b44	No Tone
DTMF/Selcall on Assist	d10	None
DQC Invert		No
Assist Transmissions	A612	2 transmissions
Time between Transmissions	A623	30 seconds
Assist Message played per transmission	A631	1 time
Escalate Message	A643	Escalate message on 3rd transmission
Press and Hold Reset	A28	Disabled
Reset Button Hold Time		5 sec.
Reset Message played per transmission	A731	1 time
Low Battery Message	A27	Enabled
TX Alert Tone	A24	Enabled Low
Message Delay on TX	A202	1 sec.

Recorded Messages

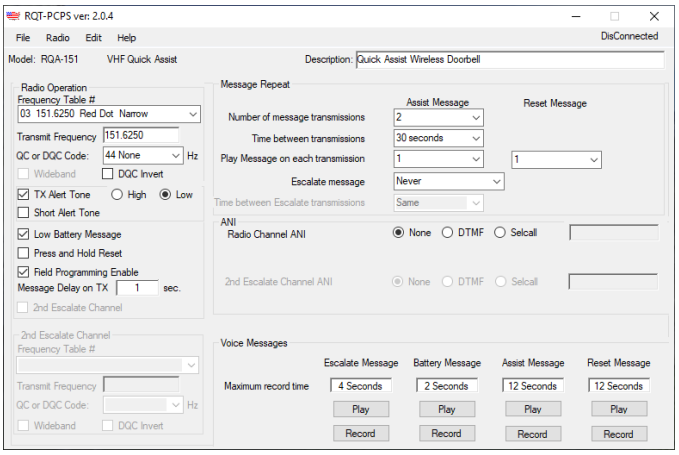
RQA Message	"Assistance needed"
Reset Message	"Quick Assist call cleared"
Low Battery	"Quick Assist battery"
Escalate	"Immediate attention required"

PC PROGRAMMING

The RQA-DB Quick Assist® can be programmed with unique voice messages and attributes. Programming can be accomplished with the RITRON RQA/RQT PC Programmer software available at www.ritron.com.

The programmer software requires Window® XP or greater, and a PC computer with a USB port.

PROGRAMMER SCREEN



Description

Enter a brief description (35 characters or less) of the Quick Assist® use, location, customer, etc. This can be useful when reading out the Quick Assist® programming at a later date, or when saving a programming profile for use with other radios.

Frequency Table

To match other RITRON radios, the owner can select from a table of transmit frequencies. Simply "read-out" the Frequency Code of your RITRON portable, mobile or base radio and enter the same code when programming the Quick Assist®. Note that all RQA-151-DB and RQA-451-DB table frequencies operate in narrow band mode (12.5 kHz). Refer to Table 1 of this manual for Frequency Codes.

Transmit Frequency

Once you have selected a code from the Frequency Table the actual transmit frequency will appear here. If your operating frequency does not appear on the Frequency Table list, a licensed radio service technician will be able to enter other frequencies within the radio's operating band.

To identify your assigned frequency:

- Read-out the Frequency Code of the RITRON radio you intend to use with the Quick Assist®.
- Check for a corresponding color dot on the radio you intend to use with the Quick Assist®.
- Locate a label identifying the receiver frequency in MHz.
- Your assigned frequency is shown on your FCC License.
- Call your radio dealer or Ritron for help if you cannot determine your radio's receiver frequency.
- The original factory-programmed transmitter frequency of your Quick Assist® is marked on the shipping box.

QC or DQC Code

Refer to Table 2 of this manual and select from a list of QC and DQC Codes to transmit subaudible squelch tones for interference elimination.

The Quick Assist® radio transmitter is compatible with two standard communications industry sub-audible signaling formats: QC (Quiet Call® Interference Eliminator), and DQC (Digital Quiet Call™ Interference Eliminator). Both Quiet Call formats unlock receivers programmed to require these codes - they screen out interference from other radio systems operating on your transmit frequency.

QC Quiet Call® is Ritron's trade name for what the communications industry calls sub-audible (below the range of human hearing) tone squelch, or CTCSS (Continuous Tone Coded Subaudible Squelch).

DQC Digital Quiet Call™ is Ritron's digital coded squelch, and works the same as QC, except it is a digital code that is transmitted with the voice messages.

To identify your QC or DQC tone:

- Read-out the Tone Code of the RITRON radio you intend to use with the Quick Assist®.
- Refer to your radio manual.
- Contact your radio dealer or Ritron if you are unsure about this issue.

DQC Invert

The DQC Digital Quiet Call™ code can be inverted for systems that require inversion.

Wideband

The Quick Assist® can be set for wideband operation where allowed, otherwise this attribute dimmed and unavailable for programming.

TX Alert Tone

By default, the Quick Assist® will transmit an alert tone before each voice message transmission. This feature can be disabled via the PC programmer or Field Programming, and can be set for High or Low level.

Short Alert Tone

With TX Alert Tone enabled, the RQA can be set for a short, single Alert Tone.

Low Battery Message

If selected, a Low Battery message is transmitted when the internal batteries are in need of replacement. The Low Battery message will play at the conclusion of any "Assistance needed" or "Quick Assist call cleared" message.

Press and Hold Reset

Often it is desirable to repeat the "Assistance message" without limitation until the call has been answered. With Press and Hold Reset enabled the front panel push button can be held down for 5 seconds to reset the Quick Assist® to the standby condition. If Press and Hold Reset is not enabled the programmed Assist Message schedule will continue to completion before the radio returns to standby condition. By default, Press and Hold Reset is disabled on the RQA-DB.

Field Programming Enable

With this feature disabled the Quick Assist® cannot be field programmed.

Message Delay on TX

This sets a time delay between turning on the Quick Assist® transmitter and playing any messages or ANI strings.

2nd Escalate Channel

If the RQA-DB has been programmed for Escalate operation, enable this feature to transmit the escalated message on a 2nd Escalate Channel frequency. Radio will transmit the escalated message on both the normal radio frequency and on the 2nd Escalate Channel frequency.

2nd Escalate Channel Frequency Table

Select from a table of transmit frequencies.

2nd Escalate Channel Transmit Frequency

Displays the table of transmit frequency, or enter another frequency within the radio's operating band.

2nd Escalate Channel QC or DQC Code

Select from a table of QC or DQC codes.

2nd Escalate Channel DQC Invert

Invert the DQC Digital Quiet Call™ code.

2nd Escalate Channel Wideband

Set for wideband operation where allowed, otherwise this attribute dimmed and unavailable for programming.

Number of Message Transmissions

You can set a limit to the number of times the Assist message will be transmitted at a scheduled interval.

Time Between Transmissions

This sets the amount of time the Quick Assist® will wait between repeated transmissions. This applies to the Assist message only.

Example: When the wired push-button is pressed, an "Assistance needed" message is to be transmitted every 30 seconds for 2 minutes. To accomplish this the Quick Assist® is programmed for 4 message transmissions with a time between transmissions setting of 30 seconds.

If programmed for Press and Hold Reset the Quick Assist® will transmit the "Quick Assist call cleared" message only once.

Play Message on Each Transmission

Your recorded voice message can be programmed to play from one time to nine times on each Quick Assist® radio transmission. Urgent messages may require more phrase repeats. This can be applied to the Assist message and the Reset message.

Example: The Quick Assist® is to be used as an emergency call button in a parking garage. If "Repeat on each Transmission" is set to 3, the Quick Assist® would transmit "Emergency in garage level 2, Emergency in garage level 2, Emergency in garage level 2" when the front-panel pushbutton is pressed.

ANI

The Quick Assist® can be programmed with a 3-9 digit DTMF or 3-7 digit Selcall ANI string. The ANI will be transmitted immediately prior to the Alert Tone and message. To program an ANI string, select Selcall or DTMF and enter the string in the value field.

Escalate Message

Program the scheduled transmission at which the Assist Message will be appended with the Escalate Message. The setting must be less than or equal to the Number of Message Transmissions for escalation to occur.

Time Between Escalate Transmissions

This sets the amount of time the Quick Assist® will wait between repeated transmissions once escalation has been achieved.

Example: When the wired push-button is pressed, an "Assistance needed" Assist Message is to be transmitted 5 times. The Assist Message is to be sent 2 times every 30 seconds, and on the 3rd transmission the Assist Message is appended with an "Assistance Critical" Escalate Message and sent every 15 seconds an additional 3 times. To accomplish this the Quick Assist® is programmed for 5 message transmissions, a time between transmissions setting of 30 seconds, Escalation Message on 3rd transmission, and a time between Escalate transmissions of 15 seconds.

Voice Messages

The Assist, Reset, Battery, and Escalate messages can be recorded via the Programmer Screen. Refer to the RECORDING YOUR QUICK ASSIST® VOICE MESSAGES section of this manual for instructions on recording voice messages using the PC Programmer. The Maximum Record Time for each message is also indicated.

RECORDING YOUR QUICK ASSIST® VOICE MESSAGES

The Quick Assist® can be programmed to play two unique voice messages, an "Assistance needed" message that is transmitted when the front panel push button is pressed, and a "Quick Assist call cleared" message that is transmitted if the Quick Assist® has been reset.

Voice messages can be recorded into the Quick Assist® using the RQA/RQT PC Programmer and the electret condenser microphone built onto the radio PCB assembly. Voice messages can also be recorded with an incoming audio signal from your computer. This allows you to record and store a message onto your computer and use it for multiple Quick Assist® transmitters.

Assist Message

The Assist message is limited to 12 seconds

When the Quick Assist® front panel push button is pressed, the factory-programmed message "Assistance needed" will be transmitted, and will be repeated per the programmed schedule. By default, the message is sent out twice with a 30 second wait time between transmissions.

Reset Message

The Reset message is limited to 12 seconds

If the Quick Assist® has been programmed for Press and Hold Reset, the user can press and hold the front panel push button for 5 seconds to reset the radio to the standby condition, at which time the factory-programmed message "Quick Assist call cleared" will be transmitted.

Low Battery Message

The Low Battery message is limited to 2 seconds

When it senses the installed batteries are nearly run down, Quick Assist® will play the factory-programmed message "Quick Assist battery" at the conclusion of any transmitted message. If you maintain several Quick Assist® transmitters within radio range of each other, you may customize this feature to easily determine which unit needs new batteries.

If you use only one Quick Assist® in any area, or if you regularly change Quick Assist® batteries, the factory-programmed message may be sufficient for your application.

Escalate Message

The Escalate message is limited to 4 seconds

When re-transmitting the Assist message, the Quick Assist® can append the Assist Message with an Escalate message after a programmed number of re-transmissions to alert radio equipped personnel that the call has not been answered in a timely manner.

Recording Custom Voice Messages

What is the purpose of Recording Custom Voice Messages?

Recording customized Quick Assist® voice messages gives them unmistakable meaning and significance. The standard factory prerecorded messages of "Assistance needed" and "Quick Assist call cleared" require the listener to know exactly where the Quick Assist® is located. However, when a user hears a custom message such as 'Assistance needed at the loading dock", the meaning is clear.

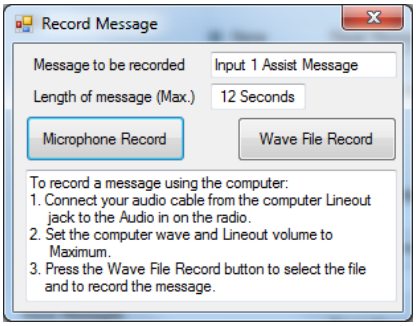
Do I need to record Custom Voice Messages?

If the factory-recorded messages "Assistance needed" and "Quick Assist call cleared" suit your application, recording custom messages is not necessary.

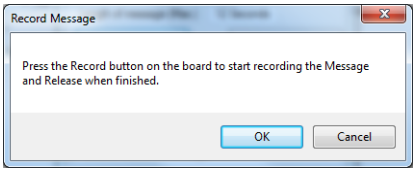
To record a custom message using the PC Programmer, refer to the following instructions. To record a custom message via Field Programming, refer to "HOW TO RECORD VOICE MESSAGES" in the Field Programming section of this manual. Once recorded, playback the message to be sure you are satisfied with the quality and content of the message.

To record your Quick Assist® Voice Messages using the on-board microphone:

1. Read the existing radio programming.
2. Press the RECORD button for the message to be recorded. The Record Message dialog box will appear.



3. Select Microphone Record.
4. The following dialog box will appear. Record the message per the instructions, then press OK to exit record mode. Message recording will automatically terminate after the allotted Length of Message time if the record button has not been released.



5. The RECORDED checkbox will now indicate that the message is recorded.
6. After you have recorded a message you can review it by pressing the associated PLAY button. The Quick Assist® will transmit the message on the programmed transmit frequency.

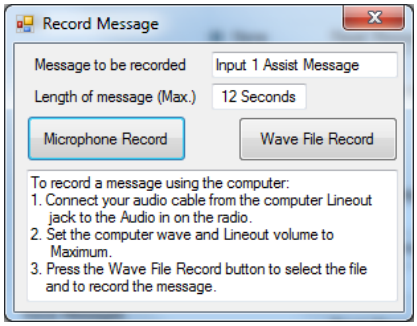
To record your Quick Assist® Voice Messages using a pre-recorded .wav file:

1. Connect the computer audio output to the RQA Series Quick Assist® using the 3.5mm to 2-pin audio cable (60201123) available from Ritron.

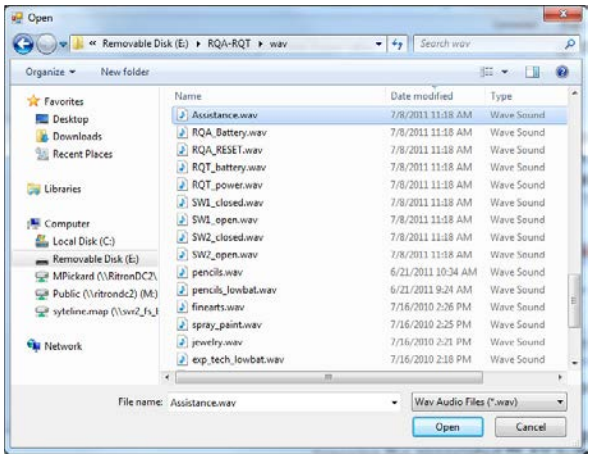
   The computer connection will be a 3.5mm stereo jack on the back or side of your computer marked as AUDIO OUT. This output is where you might connect desktop speakers or headset.

   The connection to your Quick Assist® will be via the 2-pin header located beside the Program button and display.

2. Read the existing radio programming.
3. Press the RECORD button for the message to be recorded. The Record Message dialog box will appear.



4. Select Wave File Record.
5. A Windows navigation dialog box will appear. Find and select the .wav file you would like to record to your Quick Assist®.



6. The following dialog box will appear as the message is being recorded.

7. The RECORDED checkbox will now indicate that the message is recorded.
6. After you have recorded a message you can review it by pressing the associated PLAY button. The Quick Assist® will transmit the message on the programmed transmit frequency.

RITRON, INC. LIMITED WARRANTY

WHAT THIS WARRANTY COVERS:

RITRON, INC. ("RITRON") provides the following warranty against defects in materials and/or workmanship in **RITRON Radios and Accessories** under normal use and service during the applicable warranty period (as stated below). "Accessories" means antennas, holsters, chargers, earphones, speaker/microphones and items contained in the programming and programming/service kits.

WHAT IS COVERED	FOR HOW LONG	WHAT RITRON WILL DO
Ritron RQA Quick Assist	1 year*	During the first year after date of purchase, RITRON will repair or replace the defective product, at RITRON's option, parts and labor included at no charge.
Accessories	90 days*	*****_After date of purchase_

WHAT THIS WARRANTY DOES NOT COVER:

- Any technical information provided with the covered product or any other RITRON products;
- Installation, maintenance or service of the product, unless this is covered by a separate written agreement with RITRON;
- Any products not furnished by RITRON which are attached or used with the covered product, or defects or damage from the use of the covered product with equipment that is not covered (such as defects or damage from the charging or use of batteries other than with covered product);
- Defects or damage, including broken antennas, resulting from:
  - misuse, abuse, improper maintenance, alteration, modification, neglect, accident or act of God,
  - the use of covered products other than in normal and customary manner or,
  - improper testing or installation;
- Defects or damages from unauthorized disassembly, repair or modification, or where unauthorized disassembly, repair or modification prevents inspection and testing necessary to validate warranty claims;
- Defects or damages in which the serial number has been removed, altered or defaced.
- Batteries if any of the seals are not intact.

IMPORTANT: This warranty sets forth the full extent of RITRON's express responsibilities regarding the covered products, and is given in lieu of all other express warranties. What RITRON has agreed to do above is your sole and exclusive remedy. No person is authorized to make any other warranty to you on behalf of RITRON. Warranties implied by state law, such as implied warranties of merchantability and fitness for a particular purpose, are limited to the duration of this limited warranty as it applies to the covered product. Incidental and consequential damages are not recoverable under this warranty (this includes loss of use or time, inconvenience, business interruption, commercial loss, lost profits or savings). Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitation on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. Because each covered product system is unique, RITRON disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

WHO IS COVERED BY THIS WARRANTY: This warranty is given only to the purchaser or lessee of covered products when acquired for use, not resale. This warranty is not assignable or transferable.

HOW TO GET WARRANTY SERVICE: To receive warranty service, you must deliver or send the defective product, delivery costs and insurance prepaid, within the applicable warranty period, to **RITRON, INC., 505 West Carmel Drive, Carmel, Indiana 46032, Attention: Warranty Department.** Please point out the nature of the defect in as much detail as you can. You must retain your sales or lease receipt (or other written evidence of the date of purchase) and deliver it along with the product. If RITRON chooses to repair or replace a defective product, RITRON may replace the product or any part or component with reconditioned product, parts or components. Replacements are covered for the balance of the original applicable warranty period. All replaced covered products, parts or components become RITRON's property.

RIGHTS TO SOFTWARE RETAINED : Title and all rights or licenses to patents, copyrights, trademarks and trade secrets in any RITRON software contained in covered products are and shall remain in RITRON. RITRON nevertheless grants you a limited non-exclusive, transferable right to use the RITRON software only in conjunction with covered products. No other license or right to the RITRON software is granted or permitted.

YOUR RIGHTS UNDER STATE LAW: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WHERE THIS WARRANTY IS VALID: THIS WARRANTY IS VALID ONLY WITHIN THE UNITED STATES, THE DISTRICT OF COLUMBIA AND PUERTO RICO.

FREQUENCY PROGRAMMING CODES

UHF Models - USA

Code	Frequency	Color Dot	BW
F-0-9	469.2625		12.5
F-1-0	462.5750	White Dot	12.5
F-1-1	462.6250	Black Dot	12.5
F-1-2	462.6750	Orange Dot	12.5
F-1-3	464.3250		12.5
F-1-4	464.8250		12.5
F-1-5	469.5000		12.5
F-1-6	469.5500		12.5
F-1-7	463.2625		12.5
F-1-8	464.9125		12.5
F-1-9	464.6000		12.5
F-2-0	464.7000		12.5
F-2-1	462.7250		12.5
F-2-2	464.5000	Brown Dot	12.5
F-2-3	464.5500	Yellow Dot	12.5
F-2-4	467.7625	J	12.5
F-2-5	467.8125	K	12.5
F-2-6	467.8500	Silver Star	12.5
F-2-7	467.8750	Gold Star	12.5
F-2-8	467.9000	Red Star	12.5
F-2-9	467.9250	Blue Star	12.5
F-3-0	461.0375		12.5
F-3-1	461.0625		12.5
F-3-2	461.0875		12.5
F-3-3	461.1125		12.5
F-3-4	461.1375		12.5
F-3-5	461.1625		12.5
F-3-6	461.1875		12.5
F-3-7	461.2125		12.5
F-3-8	461.2375		12.5
F-3-9	461.2625		12.5
F-4-0	461.2875		12.5
F-4-1	461.3125		12.5
F-4-2	461.3375		12.5
F-4-3	461.3625		12.5
F-4-4	462.7625		12.5
F-4-5	462.7875		12.5
F-4-6	462.8125		12.5
F-4-7	462.8375		12.5
F-4-8	462.8625		12.5
F-4-9	462.8875		12.5
F-5-0	462.9125		12.5
F-5-1	464.4875		12.5
F-5-2	464.5125		12.5
F-5-3	464.5375		12.5
F-5-4	464.5625		12.5
F-5-5	466.0375		12.5
F-5-6	466.0625		12.5
F-5-7	466.0875		12.5
F-5-8	466.1125		12.5
F-5-9	466.1375		12.5
F-6-0	466.1625		12.5
F-6-1	466.1875		12.5
F-6-2	466.2125		12.5
F-6-3	466.2375		12.5
F-6-4	466.2625		12.5
F-6-5	466.2875		12.5
F-6-6	466.3125		12.5
F-6-7	466.3375		12.5
F-6-8	466.3625		12.5
F-6-9	467.7875		12.5
F-7-0	467.8375		12.5
F-7-1	467.8625		12.5
F-7-2	467.8875		12.5
F-7-3	467.9125		12.5
F-7-4	469.4875		12.5

UHF Models - USA

Code	Frequency	Color Dot	BW
F-7-5	469.5125		12.5
F-7-6	469.5375		12.5
F-7-7	469.5625		12.5
F-7-8	462.1875		12.5
F-7-9	462.4625		12.5
F-8-0	462.4875		12.5
F-8-1	462.5125		12.5
F-8-2	467.1875		12.5
F-8-3	467.4625		12.5
F-8-4	467.4875		12.5
F-8-5	467.5125		12.5
F-8-6	451.1875		12.5
F-8-7	451.2375		12.5
F-8-8	451.2875		12.5
F-8-9	451.3375		12.5
F-9-0	451.4375		12.5
F-9-1	451.5375		12.5
F-9-2	451.6375		12.5
F-9-3	452.3125		12.5
F-9-4	452.5375		12.5
F-9-5	452.4125		12.5
F-9-6	452.5125		12.5
F-9-7	452.7625		12.5
F-9-8	452.8625		12.5
F-9-9	456.1875		12.5
F-1-0-0	456.2375		12.5
F-1-0-1	456.2875		12.5
F-1-0-2	468.2125		12.5
F-1-0-3	468.2625		12.5
F-1-0-4	468.3125		12.5
F-1-0-5	468.3625		12.5
F-1-0-6	468.4125		12.5
F-1-0-7	468.4625		12.5
F-1-0-8	468.5125		12.5
F-1-0-9	468.5625		12.5
F-1-1-0	468.6125		12.5
F-1-1-1	468.6625		12.5
F-1-1-2	456.3375		12.5
F-1-1-3	456.4375		12.5
F-1-1-4	456.5375		12.5
F-1-1-5	456.6375		12.5
F-1-1-6	457.3125		12.5
F-1-1-7	457.4125		12.5
F-1-1-8	457.5125		12.5
F-1-1-9	457.7625		12.5
F-1-2-0	457.8625		12.5
F-1-2-1	461.3175		12.5
F-1-2-2	464.8375		12.5

VHF MURS Models – USA

Code	Frequency	Color Dot	BW
F-0-1	154.600	Green Dot	25.0
F-0-2	154.570	Blue Dot	25.0
F-1-9	151.820	MURS	12.5
F-2-0	151.880	MURS	12.5
F-2-1	151.940	MURS	12.5
F-2-2	154.600	MURS	12.5
F-2-3	154.570	MURS	12.5

VHF Models – USA

Code	Frequency	Color Dot	BW
F-0-3	151.6250	Red Dot	12.5
F-0-4	151.9550	Purple Dot	12.5
F-0-5	151.9250		12.5
F-0-6	154.5400		12.5
F-0-7	154.5150		12.5
F-0-8	154.6550		12.5
F-0-9	151.6850		12.5
F-1-0	151.7150		12.5
F-1-1	151.7750		12.5
F-1-2	151.8050		12.5
F-1-3	151.8350		12.5
F-1-4	151.8950		12.5
F-1-5	154.4900		12.5
F-1-6	151.6550		12.5
F-1-7	151.7450		12.5
F-1-8	151.8650		12.5
F-2-4	151.7000		12.5
F-2-5	151.7600		12.5
F-2-6	152.7000		12.5
F-2-7	152.8850		12.5
F-2-8	152.9150		12.5
F-2-9	152.9450		12.5
F-3-0	151.5125		12.5
F-3-1	154.5275		12.5
F-3-2	153.0050		12.5
F-3-3	158.4000		12.5
F-3-4	158.4075		12.5

VHF Models - Canada

Code	Frequency	Color Dot	BW
F-0-1	151.055		25
F-0-2	151.115		25

UHF Models - Canada

Code	Frequency	Color Dot	BW
F-0-1	458.6625		25.0
F-0-2	469.2625		25.0

RQA-451-CANADA-GMRS

Code	Frequency	Color Dot	BW
F-0-1	462.5625	GMRS/FRS	12.5
F-0-2	462.5875	GMRS/FRS	12.5
F-0-3	462.6125	GMRS/FRS	12.5
F-0-4	462.6375	GMRS/FRS	12.5
F-0-5	462.6625	GMRS/FRS	12.5
F-0-6	462.6875	GMRS/FRS	12.5
F-0-7	462.7125	GMRS/FRS	12.5
F-0-8	467.5625	FRS	12.5
F-0-9	467.5875	FRS	12.5
F-1-0	467.6125	FRS	12.5
F-1-1	467.6375	FRS	12.5
F-1-2	467.6625	FRS	12.5
F-1-3	467.6875	FRS	12.5
F-1-4	467.7125	FRS	12.5
F-1-5	462.5500	GMRS	12.5
F-1-6	462.5750	GMRS	12.5
F-1-7	462.6000	GMRS	12.5
F-1-8	462.6250	GMRS	12.5
F-1-9	462.6500	GMRS	12.5
F-2-0	462.6750	GMRS	12.5
F-2-1	462.7000	GMRS	12.5
F-2-2	462.7250	GMRS	12.5

TONE PROGRAMMING CODES

Code	QC Tone
b-0-1	67.0
b-0-2	71.9
b-0-3	74.4
b-0-4	77.0
b-0-5	79.7
b-0-6	82.5
b-0-7	85.4
b-0-8	88.5
b-0-9	91.5
b-1-0	94.8
b-1-1	97.4
b-1-2	100.0
b-1-3	103.5
b-1-4	107.2
b-1-5	110.9
b-1-6	114.8
b-1-7	118.8
b-1-8	123.0
b-1-9	127.3
b-2-0	131.8
b-2-1	136.5
b-2-2	141.3
b-2-3	146.2
b-2-4	151.4
b-2-5	156.7
b-2-6	162.2

Code	QC Tone
b-2-7	167.9
b-2-8	173.8
b-2-9	179.9
b-3-0	186.2
b-3-1	192.8
b-3-2	203.5
b-3-3	210.7
b-3-4	218.1
b-3-5	225.7
b-3-6	233.6
b-3-7	241.8
b-3-8	250.3
b-3-9	69.4
b-4-0	159.8
b-4-1	165.5
b-4-2	171.3
b-4-3	177.3
b-4-4	**No Tone**
b-4-5	183.5
b-4-6	189.9
b-4-7	196.6
b-4-8	199.5
b-4-9	206.5
b-5-0	229.1
b-5-1	254.1
b-0-0	**No Tone**

Code	DQC
b-0-2-3	023
b-0-2-5	025
b-0-2-6	026
b-0-3-1	031
b-0-3-2	032
b-0-3-6	036
b-0-4-3	043
b-0-4-7	047
b-0-5-1	051
b-0-5-3	053
b-0-5-4	054
b-0-6-5	065
b-0-7-1	071
b-0-7-2	072
b-0-7-3	073
b-0-7-4	074
b-1-1-4	114
b-1-1-5	115
b-1-1-6	116
b-1-2-2	122
b-1-2-5	125
b-1-3-1	131
b-1-3-2	132
b-1-3-4	134
b-1-4-3	143
b-1-4-5	145
b-1-5-2	152
b-1-5-5	155
b-1-5-6	156
b-1-6-2	162
b-1-6-5	165
b-1-7-2	172
b-1-7-4	174
b-2-0-5	205
b-2-1-2	212

Code	DQC
b-2-2-3	223
b-2-2-5	225
b-2-2-6	226
b-2-4-3	243
b-2-4-4	244
b-2-4-5	245
b-2-4-6	246
b-2-5-1	251
b-2-5-2	252
b-2-5-5	255
b-2-6-1	261
b-2-6-3	263
b-2-6-5	265
b-2-6-6	266
b-2-7-1	271
b-2-7-4	274
b-3-0-6	306
b-3-1-1	311
b-3-1-5	315
b-3-2-5	325
b-3-3-1	331
b-3-3-2	332
b-3-4-3	343
b-3-4-6	346
b-3-5-1	351
b-3-5-6	356
b-3-6-4	364
b-3-6-5	365
b-3-7-1	371
b-4-1-1	411
b-4-1-2	412
b-4-1-3	413
b-4-2-3	423
b-4-3-1	431
b-4-3-2	432

Code	DQC
b-4-4-5	445
b-4-4-6	446
b-4-5-2	452
b-4-5-4	454
b-4-5-5	455
b-4-6-2	462
b-4-6-4	464
b-4-6-5	465
b-4-6-6	466
b-5-0-3	503
b-5-0-6	506
b-5-1-6	516
b-5-2-3	523
b-5-3-2	532
b-5-4-6	546
b-5-6-5	565
b-6-0-6	606
b-6-6-2	662
b-6-1-2	612
b-6-2-4	624
b-6-2-7	627
b-6-3-1	631
b-6-3-2	632
b-6-4-5	645
b-6-5-4	654
b-6-6-4	664
b-7-0-3	703
b-7-1-2	712
b-7-2-3	723
b-7-3-1	731
b-7-3-2	732
b-7-3-4	734
b-7-4-3	743
b-7-5-4	75

DTMF OR SELCALL ENCODE ANI (TRANSMIT) CODES

Code	Description
d-1-xxxxxxxxx	For DTMF ANI codes to be transmitted with all messages – Enter “d” and “1”, then a 3-9 digit ANI code.
d-2-xxxxxxx	For SELCALL ANI codes to be transmitted with all messages – Enter “d” and “2” then a 3-7 digit ANI code.
d-0	To remove all DTMF and SELCALL ANI codes – Enter “d” and “0”

MESSAGE CODES

Code	Description
Record Voice Messages	
A-3-1	Reset Message (12 sec. max) Once recorded, the message is transmitted when the Quick Assist is turned-off using the Press and Hold Reset feature.
A-3-2	Assist Message (12 sec. max) Once recorded, the message is transmitted when the Call Button is pressed, and then re-transmitted per the programmed schedule.
A-3-3	Low Battery Message (2 sec. max) Once recorded, the message is sent at the end of each transmitted message if low battery voltage is detected.
A-3-4	Escalate Message (4 sec. max) Once recorded, the message is appended to the Assist message starting at a programmed number in the schedule.
Transmit a recorded message for review	
A-4-1	Reset Message
A-4-2	Assist Message
A-4-3	Low Battery Message
A-4-4	Escalate Message
Delay between the time TX turns on and a message is sent	
A-2-0-0	no delay
A-2-0-1	½ second
A-2-0-2	1 second *(Factory default)*
A-2-0-3	1½ seconds
A-2-0-4	2 seconds
A-2-0-5	2½ seconds
A-2-0-6	3 seconds
A-2-0-7	3½ seconds
A-2-0-8	4 seconds
A-2-0-9	4½ seconds

Code	Description
Number of times the Assist Message will be transmitted on a scheduled basis before the Quick Assist turns off	
A-6-1-1	1 time
A-6-1-2	2 times *(Factory default)*
A-6-1-3	3 times
A-6-1-4	4 times
A-6-1-5	5 times
A-6-1-6	6 times
A-6-1-7	7 times
A-6-1-8	8 times
A-6-1-9	repeat forever
Time between scheduled Assist message transmissions	
A-6-2-1	on changes only
A-6-2-2	15 sec
A-6-2-3	30 sec *(Factory default)*
A-6-2-4	1 min
A-6-2-5	1 ½ min
A-6-2-6	2 min
A-6-2-7	3 min
A-6-2-8	4 min
A-6-2-9	5 min
A-6-2-0	10 min
Number of times the Assist Message is played on each transmission	
A-6-3-1	1 time *(Factory default)*
A-6-3-2	2 times
A-6-3-3	3 times
A-6-3-4	4 times
A-6-3-5	5 times
A-6-3-6	6 times
A-6-3-7	7 times
A-6-3-8	8 times
A-6-3-9	9 times

Code	Description
Append Escalation Message - The scheduled Assist Message transmission on which the Escalation Message is appended	
A-6-4-1	Always append
A-6-4-2	Append on 2nd transmission
A-6-4-3	Append on 3rd transmission *(Factory default)*
A-6-4-4	Append on 4th transmission
A-6-4-5	Append on 5th transmission
A-6-4-6	Append on 6th transmission
A-6-4-7	Append on 7th transmission
A-6-4-8	Append on 8th transmission
A-6-4-9	Append on 9th transmission
A-6-4-0	Never append
Time between Escalate transmissions - Sets the length of time between Escalated Assist message transmissions. (5)	
A-6-5-1	Same as Assist message time
A-6-5-2	15 sec
A-6-5-3	30 sec
A-6-5-4	1 min
A-6-5-5	1 ½ min
A-6-5-6	2 min
A-6-5-7	3 min
A-6-5-8	4 min
A-6-5-9	5 min
A-6-5-0	10 min
Number of times the Reset Message is played on each transmission	
A-7-3-1	1 time *(Factory default)*
A-7-3-2	2 times
A-7-3-3	3 times
A-7-3-4	4 times
A-7-3-5	5 times
A-7-3-6	6 times
A-7-3-7	7 times
A-7-3-8	8 times
A-7-3-9	9 times

FEATURE CODES

Code	Description
Special Features	
A-2-1	Resets all Quick Assist® features that can be field programmed to Factory default programming.
A-2-2	Display 6-digit Radio Revision
A-2-3	Disable TX Alert Tone
A-2-3-1	Enable Short Alert Tone (5)
A-2-4	Enable TX Alert Tone Low *(Factory default)*
A-2-5	Enable TX Alert Tone High
A-2-6	Disable Low Battery Alert
A-2-7	Enable Low Battery Alert *(Factory default)*
A-2-8	Disable Press and Hold Reset (*RQA-DB models default*)
A-2-9	Enable Press and Hold Reset *(Factory default)*

Code	Description
Programming Readout Codes	
A-8-1	Display will sequentially show the 2 or 3-digit Frequency Code. (1)
A-8-2	Display will sequentially show the 2-digit QC Tone Code or 3-digit DQC Tone Code. (2)
A-8-3	Display will sequentially show the 1-9 digit DTMF or 3-7 digit Selcall Code. (3)
A-8-6-1	Number of Assist Messages transmissions
A-8-6-2	Assist Message Time between transmissions
A-8-6-3	Assist Message Number of times message is played on each transmission
A-8-6-5	Escalate Message Time between transmissions
A-8-7-3	Reset Message Number of times message is played on each transmission.

2ND ESCALATE CHANNEL CODES

Code	Description
A-5-1-xxx	To transmit Escalate Messages on a 2nd Escalate frequency - Refer to Table 1 for the 2 or 3-digit Table Frequency. Enter “A”, “5”, “1”, then enter the Table Frequency Code. (5)
A-5-1-0	Delete all 2nd Escalate Channel programming. (5)
A-5-2-xxx	To set a 2nd Escalate QC or DQC Code - Refer to Table 2 for the QC Tone Code or Table 3 for digital DQC Tone Code. Enter “A”, “5”, “2”, then enter the 2-digit QC or 3-digit DQC code. (5)
A-5-3-xxxxxxxxx	To set a 2nd Escalate DTMF ANI (9-digits max) that is sent at the start of each transmission on the 2nd Escalate frequency. Enter “A”, “5”, “3”, then a 3-9 digit DTMF ANI code. (5)
A-5-4-xxxxxxx	To set a 2nd Escalate Selcall ANI (7-digits max) that is sent at the start of each transmission on the 2nd Escalate frequency. Enter “A”, “5”, “4”, then a 3-7 digit Selcall ANI code. (5)
A-8-5-1	Readout 2nd Escalate Frequency, Display will sequentially show the programmed 2 or 3-digit Frequency Code. (1) (5)
A-8-5-2	Readout 2nd Escalate QC or DQC Tone Code. Display will sequentially show the programmed 2-digit QC Tone Code or 3-digit DQC Tone Code. (2) (5)
A-8-5-3	Readout 2nd Escalate DTMF ANI. Display will sequentially show the programmed 3-9 digit DTMF Code. (3) (5)
A-8-5-4	Readout 2nd Escalate Selcall ANI. Display will sequentially show the programmed 3-7 digit Selcall Code. (3) (5)

NOTES:
(1) 999 indicates a non-table frequency.
(2) If DCS is inverted you will get an ERROR indication
(3) If “0” is displayed the radio has not been programmed for DTMF or Selcall ANI.
(4) ERROR indication will be displayed if not a Field Programming value (has been PC programmed)
(5) Feature available on radio revision 32.52 or higher. Enter “Display Radio Revision” code A22, the last 4 digits displayed indicate radio revision.