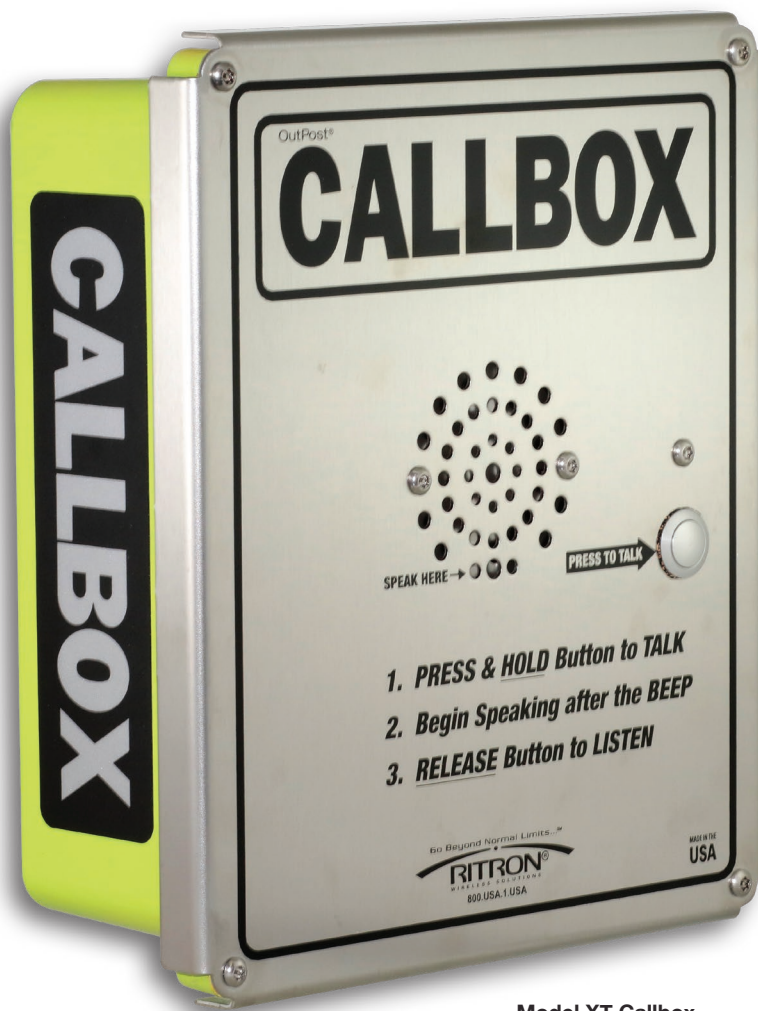# XT Series
2-Way Radio Callbox

Wireless Long-Range Radio Communication For Fixed Locations.

The XT Series Callbox provides long range, (miles, not feet), real-time, 2-way communication between students/visitors/ customers or employees and your radio equipped personnel.

Now you can extend safety and security to even the most remote locations without costly trenching or monthly air-time fees. Our wireless technology enables you to improve response time without adding additional personnel or infrastructure.
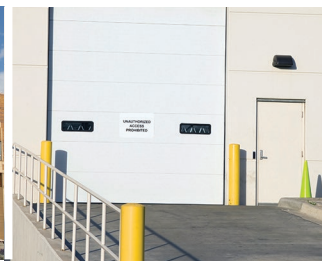
RITRON®
WIRELESS SOLUTIONS

CALLBOX
OutPost®

SPEAK HERE →   **PRESS TO TALK**

1. **PRESS & HOLD** Button to TALK
2. Begin Speaking after the **BEEP**
3. **RELEASE** Button to LISTEN

Go Beyond Normal Limits...™

RITRON®
WIRELESS SOLUTIONS
800.USA.1.USA

MADE IN THE USA

Model XT Callbox
Reinforced Fiberglass Enclosure, Stainless Steel Faceplate, Sealed, Heavy-Duty PTT Button

Optional Entry Keypad (KP) can be installed at time of order. Connects via hardwire to gate controller.

Applications... Schools and Day Cares • Manufacturing and Construction Sites • Health Care Facilities • Delivery Docks • Gate Secured Areas • Amusement Parks and Resorts

HELP Happens!
Enhance Security with Wireless Voice Communications

Whether your business is education, retail, transportation, manufacturing, warehousing or a government facility, the safety and well being of students, visitors, customers and employees is of utmost importance.

If you need access control and 2-way voice communication at remote gates or doors ...or communication from a remote area of the plant or parking lot, a simple call for assistance from a Ritron callbox can go a long way in helping to solve a problem more quickly.

The Ritron Solution

A Ritron radio callbox allows you to put crisp, clear 2-way wireless voice communication right where you need it, without trenching and without monthly air-time fees. At the push of a button, our callbox provides long-range, (miles, not feet), communication to the radio-equipped personnel in your radio network. With 5 times more range than other wireless systems and PC programmable, the callbox is compatible with virtually any brand of VHF or UHF business band 2-way radio. If extended range is required, it's easy to add an external antenna to the callbox or it can be PC programmed to operate through radio repeaters.

Standard Features and Capabilities

For applications where the VHF frequency band will serve your needs, all VHF models are certified for use on special FCC License-Free MURS Business Frequencies.

For simple installation, the callbox is designed to operate on 6 D cell batteries (alkaline), or if the callbox must remain on at all times to receive a call, like an intercom, they can be powered from an optional external power source. For solar power applications, we offer the RSS-100 solar power system. To make mounting the callbox easy, a variety of brackets are available to help installation (see back page).

Added Value Features

In addition to 2-way voice communication, the model 6 and 7 callbox allow you to remotely control a gate or magnetic door lock from your portable 2-way radio, desk-top base station, or mobile radio.

The model 7 includes a unique voice storage capability that will play a custom voice greeting on the callbox speaker each time the PTT button is pressed and then send a second and separate custom voice message alert to your radio-equipped personnel.

Construction

Construction Sites –Put wireless 2-way voice communication right where you need it without costly hard wired installation. Ritron callboxes enhance safety and improve productivity on any job site. A callbox can be easily installed in the man-lift elevator and on each floor of a high-rise job site, thus providing a reliable wireless 2-way communication system for the man-lift elevator. See our Construction Site System at www.ritron.com/cons.html.
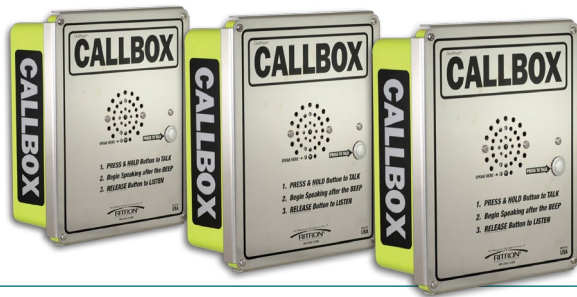

Golf

Golf Courses –Install a callbox at the 9th and 18th tee. Players can now order food and beverages before they get to the clubhouse allowing them to make "the turn" faster. The result is more rounds played and higher food and beverage sales for the course. See our Club Call System at www.ritron.com/golf.html.

Gates

Gated Entrances –Wireless communication and access control of your remote gate without costly trenching. 5x more range than other wireless intercom systems. Communicate and control your gate from long range using your 2-way portable or base station radio. See our GateGuard System at www.ritron.com/prod_gg.html.

Choosing The Right Callbox Model For Your Needs

Each model can be ordered with or without keypad in a tamper resistant, Heavy Duty XT enclosure. Select the features you require from 3 distinct models. See chart below for a more complete feature list of each Model.

Heavy Duty XT Enclosure
- Stainless Steel Faceplate
- Tamper-Resistant PTT Button
- Tamper-Resistant Fasteners
- Speaker Grill Guard
- Internal Antenna

Optional Entry Keypad (KP) can be installed at time of order. Connects via hardwire to gate controller.

Model 1
- Model 1 feature set allows for simple, basic 2-way callbox communication applications
- Narrow Band
- D Cell Battery or External Power Capability

Model 6
All Features of the Model 1 Plus:
- Built-in Relay for Remote Control
- Decode 2-Tone
- Encode DTMF ANI
- Sensor Inputs

Model 7
All Features of the Model 6 Plus:
- Voice Storage
- Voice Greeting and Voice Alert
- AC Fail/Low Battery Voice Alert
- Encode/Decode 3-7 Tone (Selcall)
- Remote "Listen-In" feature

Campuses

Airports

Hospitals

Manufacturing

Construction Sites

Resorts

Gated Facilities

Locked Entrances

Farms

Warehouses

Golf Courses

Ranches

Campgrounds

Parking Lots

Delivery Doors

FEATURES / *Benefits*	Model 1	Model 6	Model 7
Simple 2 Button Programming -*Change an array of settings without a PC!*	✓	✓	✓
PC Programmable -*Allows customization of all callbox attributes (PC and Programming Software Required)*	✓	✓	✓
Reset Time Field Programmable -*Change how long before the Callbox shuts down without software!*	✓	✓	✓
Encode ANI (DTMF or 3 to 7 Tone Selcall) -*Callbox can be programmed to transmit a unique numeric identifier to the appropriate decoding radio. Allows monitoring personnel to instantly identify callbox in use. Receiving radio requires proper decoding capability.*	✓	✓	✓
Busy Channel TX Inhibit -*Prevents Callbox from transmitting if someone else is using the radio channel*	✓	✓	✓
Wide or Narrow Band Capable -*Enables compatibility with most other radio systems*	✓	✓	✓
Battery Powered or External AC Power Ready -*Power the Callbox with 6 D Cell Batteries for maximum simplicity or 120 Volts AC (Use Ritron # RPS-EXPO Power Supply)*	✓	✓	✓
Adjustable Speaker Volume -*Control the volume of the Callbox speaker. Adjustable 1 to100%*	✓	✓	✓
Adjustable Microphone Gain -*Normal or high mic gain setting allows flexibility for different ambient noise environments*	✓	✓	✓
Adjustable Transmit Power Output -*Select 1or 2 Watt transmit setting (UHF Only). VHF 1 Watt only*	✓	✓	✓
Automatic "Turn-Off" and "Always-On" Intercom Feature -*Callbox can programmed to automatically "Turn-OFF" to conserve batteries or callbox can remain "ON" and in "Standby" Receive mode. (Use Ritron RPS-EXPO power supply.)*	✓	✓	✓
Remote Control Relay -*Built-in relay allows remote activation of Gate Controllers, Doors, Barrier Arms, and Strobe Lights connected to the Callbox. Relay can also be used to turn an "attention getting" strobe light ON when callbox PTT button is pressed.*		✓	✓
Listen-In Feature -*Callbox can be selectively paged to allow remote monitoring of audio in the area immediately surrounding the callbox.*		✓	✓
Auxiliary Sensor Monitoring -*Motion, Gate Entry, Tamper or Vehicle Detection Device. Callbox will send either a tone alert (Model 6) or custom voice alert (Model 7) when optional switch/sensor status changes.*		✓	✓
GateGuard Field Programmable -*Enable the switch relay for operation of an external device without software!*		✓	✓
Automatic Turn-On Capability -*A sensor connected to the auxiliary input can automatically turn the callbox ON to receive a call from radio-equipped personnel. Conserves batteries and quiets callbox until needed.*		✓	✓
Alert Tone - Low Battery Alert or External Power Fail -*Distinct tone sounds to alert radio-equipped personnel of a low battery condition or a power failure.*		✓	✓
2-Tone Paging Decode (300-1500Hz) -*Allows selective calling of indivudal callboxes*		✓	✓
2-Tone Paging Decode All-Call -*Allows selective calling of a group of callboxes simultaneously*		✓	✓
Companded Audio -*Allows compatibility with narrow band radio systems using companding technology*		✓	✓
Available In New FCC Channel Steps -*2.5KHz VHF or 6.25KHz UHF*		✓	✓
Government Band Frequency -*Now available in 406-421 MHz*		✓	✓
Recordable Voice "Greeting" -*When the Callbox button is pressed, a "custom" greeting will play on the callbox speaker.*			✓
Recordable Voice Messages -*A separate and "custom" Voice Message Alert can be transmitted to alert radio-equipped personnel when Callbox button is pressed. No PTT button press required to send voice alert when these conditions are detected: AC power fail/low battery or when auxiliary sensor status has changed.*			✓
Automatic Voice Message Alert "Re-Send" -*When Alert message from Callbox is not immediately answered, Alert message will automatically be "re-sent" up to 5 times. Number of "re-send" is selectable 0-5 times.*			✓

Download a useful Battery Calculator Program at www.ritron.com/rqx_bat_cal.exe

New! Q Series Callbox

Liberty Repeater

Portable Radios

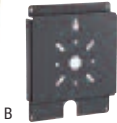**Ritron Base Station**

LoudMouth Wireless PA

Ritron has a full complement of wireless products and accessories for your radio callbox communications.

Mounting Brackets

RQX-XTMK (A) –Allows mounting to a flat surface or 4x4 post. Fits heavy duty XT enclosure type.

RQX-XTMK-GN (B) –Allows mounting to a goose-neck flange. Fits heavy duty XT enclosure type.

RK-RQX-MB –Allows mounting to a flat surface. Fits light duty enclosure type. (not shown)

Lights

R-Strobe –Blue Strobe Light, 120VAC, 1 Amp (Peak 4 Amp). Can be used with 6 or 7 Series. Automatically turns on when callbox PTT button is activated.

Antennas

RAM-45 (A) –UHF Magnetic mount antenna, unity gain, 12 feet of cable, BNC connector

RAM-1545 (B) –UHF/VHF, Dual band, magnetic mount antenna, unity gain, 25 feet of cable, BNC connector

Power

RPS-EXPO –External power supply cube, rated for indoor use only, 110VAC to 13VDC.

RSS-100 Solar Kit –Includes: 10 Watt solar panel, Sealed lead acid battery, charge controller and NEMA housing. Dimensions: Solar Panel 16.4"H x 10.6"W x 0.9"D. Enclosure 12"H x 10.25"W x 6.25" D. Weight: 10lbs. Mounts to flat surface.
Solar kit back-up 7Ahr battery will support a callbox for 2.7 days with zero sun. If battery saver on, 4.2 days. Assumes callbox is set for Always On, no power save, 1 10 sec transmission and 1 received call per hour.

Signalling

RQE-2 –MDC1200/GStar protocol. (ANI) Automatic Number Identification board. When used with companion decoder allows each callbox to be ID'd with unique number. (not shown)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Your Ritron Dealer:

GENERAL SPECIFICATIONS

Model No.:	RQX-151/XT RQX-156/XT RQX-157/XT	RQX-451/XT RQX-456/XT RQX-457/XT
Frequency Range:	VHF 150-165 MHz	UHF 450-470 MHz
Max. Freq. Separation:	15 MHz	20 MHz
RF Channels:	1 Channel with Independent TX/RX frequencies.	
Synthesizer Step Size:	2.5 kHz	6.25 kHz
Frequency Stability:	+/-2.5 PPM (-30 to +60 C) TX/RX	+/-1.5 PPM (-30 to +60 C) TX/RX
Tone/Code Signaling:	CTCSS (Quiet Call), Digital Coded Squelch (Digital Quiet Call), 2-Tone Paging Decode (6 & 7 Series Only), DTMF ANI Encode (6 & 7 Series Only)	
Dimensions:	Light Duty 7.0"H x 5.0"W x 3.0"D	
	XT 11.5"H x 9.5"W x 4.0"D	
Weight:	Light Duty 3 lb. 12 oz. with antenna and 6 D-cell batteries	
	XT 9 lb. 10 oz. with antenna and 6 D-cell batteries	
Enclosure Material:	Valox; Light Duty: Thermo Plastic O-ring sealed; XT: Reinforced Fiberglass; Environmental: Splash resistant, shock and vibration per RITRON Test	
RJ11 Telephone Jack:	Internal RJ11 jack is used for PC programming.	
Antenna Fitting:	BNC	

RECEIVER

Modulation Acceptance:	Narrow Mode	Narrow Mode
	+/- 3.75 kHz	+/- 3.75 kHz
Sensitivity: (12 dB SINAD)	0.20 µV	0.20 µV
Noise Squelch Sensitivity:	Programmable, factory set for 12 dB SINAD	
Frequency Response:	300 - 3000 Hz, de-emphasized	
Audio Output	1 Watt into 8 OHMS, with less than 5% THD @ the earphone jack	

TRANSMITTER

Emission Designator:	Narrow Mode	Narrow Mode
	11K0F3E	11K0F3E
Deviation:	+/- 2.50 KHz	+/-2.50 KHz
RF Power Output:	1.0 Watts maximum @ +13 VDC	2.0 Watts maximum @ +13 VDC
Time-out Timer:	60 seconds, programmable	

POWER REQUIREMENTS

Standby:	85 mA	75 mA
Sleep:	25 mA	25 mA
Avg. Standby w/Power Saver:	30 mA	30 mA
Receive:	230 mA	250 mA
Transmit:	550 mA @ 1.0 Watts	475 mA @ 2.0 Watts
		375 mA @ 1.0 Watts
Power Supply:	Internal (6) "D" Cell Battery Holder and Internal screw terminal connectors for external 12 VDC supply	

BATTERY LIFE AT 1 WATT

6 D-Cell Batteries:	Alkaline
Capacity:	14,000 mAH
Transmissions:	7000
Duty Cycle:	3 second RX, 3 second TX, 10 second standby

For more information about how the OutPost Callbox can help you, call 800-USA-1-USA or visit www.ritron.com/callboxes.html

RITRON®
WIRELESS SOLUTIONS

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