



## MISSION CRITICAL WIRELESS



**MAKE EVERY  
WORD SECURE**

### **MISSION CRITICAL WIRELESS: SECOND NATURE SO YOU WON'T SECOND GUESS.**

Whether you're calling for back-up in a foot chase or conferring with detectives at a stake-out, your wireless devices must be remarkably secure and robust. Easy and intuitive, fast and trouble-free, yet tough enough to withstand the heat of action and long hours of wear.

We understand what's missing in mission critical communications. And we know that standard wireless accessories can't deliver what you want most: a mission critical wireless earpiece designed specifically for high-security situations and high-stress environments. Seamless, streamlined and cutting-edge secure, without the vulnerabilities and pairing problems that plague off-the-shelf devices.

You want a wireless solution that's easy to use, instantaneous to connect and comfortable to wear. A solution that works with radios that don't have displays or keypads. So second nature, you don't have to second guess if it works. Whether you're a commander on the scene or an officer on the beat, you can be sure every word is heard and every word is secure.

# WE'VE GIVEN BLUETOOTH "TEETH." IT'S MORE SECURE THAN EVER BEFORE.



What's the truth behind Bluetooth? Originally designed with a long unique PIN, it offered good security, but was too complex for consumers to input and remember. Flooded by customer service calls, manufacturers downsized to a four-digit default pin (0000) – "automating out" the safeguards that would have made it effective. As hackers got smarter and their attacks grew, so did concerns about using Bluetooth in mission critical applications.

Yet Bluetooth is capable of being a secure solution when it's 128-bit encryption is properly keyed and turned on. The real security hole for earlier versions of Bluetooth was "pairing". Because pairing was broadcast over the air, hackers could listen in from hundreds of yards away and access the credentials being exchanged.

With advanced technology, we've made Mission Critical Wireless a much more secure fit for mission critical applications than conventional Bluetooth solutions. Hackers are thwarted by pairing over a new ultra-short range "touch" connection that hackers cannot intercept. The combination of ultra-short range privacy and strong keys make this wireless system safe enough for mission critical applications.

## ACTIVATES IN AN INSTANT WITH JUST A "TOUCH"

We looked for a better way to enhance Bluetooth's security and created an ultra-short range "out of band" data link for exchanging device credentials. As a result, Motorola's Mission Critical Wireless Earpiece pairs within an inch of the radio and that exchange is virtually undetectable beyond a few inches. Since you must be that close to pair, you can be confident your accessory is connecting with your radio. With Mission Critical Wireless, discovery is turned off and a hacker won't even know your earpiece is there.

Motorola's "out of band" pairing system accelerates your job – taking only two seconds to pair and less than five seconds for the wireless connection to be ready to use. You get an immediate and secure

connection with just a "touch". During the "touch", the Bluetooth IDs and a strong 128 bit key are exchanged, ensuring transmission security is virtually unbreakable and brute force attacks on its encryption are extremely difficult.\*

From a K-9 unit on patrol to a SWAT team on a covert mission, you want to communicate without complications or distractions. With our Mission Critical Wireless, you won't have to key in codes or fiddle with equipment. Just move your radio within an inch of any mission critical accessory to activate it immediately.

\*In the many years E0 encryption has been used, successful brute force attacks in the field have never been reported.

## CONNECTS YOU AUTOMATICALLY. ELIMINATES THE AMBIGUITY OF “WHICH IS MINE?”

It's 7:15 a.m. and officers are simultaneously grabbing radios from the station's multi-unit chargers. You may not have the same radio you had yesterday. How do you know your accessory is not paired to another officer's radio? Confident other devices aren't interfering with your device?

Motorola's proprietary “out of band pairing” eliminates the ambiguity over which devices are paired – even when there are multiple devices pairing at the same time, within close proximity of each other. Our Mission Critical Wireless assures that a device is paired and connected correctly, easily and immediately the first time.

Our simpler, stronger, secure pairing process automatically starts the wireless connection and configures the earpiece to communicate with the same settings or profile as the radio. All you ever have to do is hold the devices within an inch of each other. Since you must be that close to pair, you can be confident your accessory is connecting with your radio and not another officer's radio.

It's that simple. It's that streamlined. It's that secure.

### THE APX PORTABLE FAMILY: SAFETY REDEFINED

What could be more mission critical? Our Mission Critical Wireless Earpiece is the first in a series of wireless applications for our APX™ two-way portables. APX embodies all the features first responders ask for today and imagine tomorrow. That's because we worked with police officers and firefighters from Miami to Malaysia to design APX with their safety in mind.

- Exceptional ergonomics with well-positioned controls that are easily differentiated
- Best-in-class audio that's 50% louder and clearer
- Smaller, lighter size with larger, well-lit displays
- Seamless P25 interoperability
- Industry leading rugged and ultra-reliable design

## LATENCY SO LOW THAT EVERY WORD OF EVERY MESSAGE GETS THROUGH.



If you're responding to a life-threatening incident, the difference between what's said and what's heard can be life-changing. If you miss the word “Don't” before “shoot”, it can alter the meaning and consequence of your actions forever.

When you wear our Mission Critical Wireless earpiece you can be assured every word you transmit will get through without being truncated. That is because the latency of our Mission Critical Wireless – the time between when you press the PTT button and your message is transmitted – is exceptionally low; low enough that it is imperceptible to anyone using a radio.

## FIELD-TESTED TECHNOLOGY THAT SOUNDS AS GOOD AS IT FEELS.



We created the first secure Mission Critical Wireless earpiece to be the perfect complement to our APX portfolio. Unlike off-the-shelf devices, it's first responder-focused and ready for wherever you communicate. Skillfully engineered and expertly

designed, our earpiece is very comfortable to wear for long periods of time and easily fits under helmets.

Our Mission Critical Wireless Earpiece is so robust, it performs in the most strenuous activities – whether you're chasing a suspect on foot, working K-9 patrol in the rain or handling crowd-control in heat and humidity. Officers tell us they forget they're wearing it. It stays snugly in place during a 10-hour shift and doesn't need recharging the entire time.

Since our earpiece provides cutting-edge audio and exceptional clarity, it ensures that messages come through clearly, even in noisy environments. It's trusted, field-tested technology that stands up and stands out in any mission critical situation.

## SECURE YOUR FUTURE WITH MISSION CRITICAL WIRELESS APPLICATIONS.

This remarkably secure solution is the first in a series of wireless devices that seamlessly interoperate with our APX portfolio. By adding an option board to your APX 7000 or ordering the enhanced expansion board with your APX 6000, you will be able to connect quickly, easily and securely to Mission Critical Wireless devices. We're starting with the earpiece today and will be adding connectivity to new accessories and data devices in the future.

You told us what you needed and we listened. Mission Critical Wireless is about using our knowledge, design leadership and technological innovations to collaborate and create a next generation application that's everything you want, for any situation you face. Allowing you to focus on your mission... not the device. Together we are creating the first secure solution that is second nature to use.

## TECHNOLOGY THAT'S SECOND NATURE™

The APX P25 Portable Radios are part of the Next Generation Public Safety Mission Critical Portfolio of products that offer seamless connectivity between first responders. Motorola puts real-time information in the hands of first responders to provide better information that enables better decisions for better outcomes. It's Technology That's Second Nature.

## APX P25 MISSION CRITICAL RADIOS

Additional information and resource such as product information, brochures and white papers are available on the APX product website at [motorola.com/apx](http://motorola.com/apx).

[www.motorola.com/apx](http://www.motorola.com/apx)



**MOTOROLA**

Motorola, Inc. 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A. [motorola.com/apx](http://motorola.com/apx)

MOTOROLA and the stylized M Logo are registered in the U.S. Patent and Trademark Office. The Bluetooth trademarks are owned by their proprietor and used by Motorola, Inc. under license. All other product or service names are the property of their respective owners. © Motorola, Inc. 2010 All rights reserved.

RO-38-2011