

APX and XTS Series Portable Radio Cleaning Guide

MODEL / SYSTEM AFFECTED: All APX and XTS series portable radios

SYMPTOMS: Excessive debris on radio may degrade audio quality and control functionality, such as Push to Talk, volume control, channel control, etc.

Note: Radios cleaned with chemical compounds (other those listed in the guideline in Appendix A) may show changes in the color of the housing or the housing may show cracks.

CAUSE: Excessive debris in the speaker grill or microphone area may cause poor or degraded audio quality. Excessive debris in or around the functions buttons or control knobs, may cause inconsistent operation or controls.

RESOLUTION: Please follow the cleaning guide in Appendix A of this bulletin as a cleaning guide to improve radio appearance and audio quality impacted by excessive dirt and debris.

Note: The APX and XTS user guide and service manuals will be updated with the information provided in Appendix A of this bulletin in the near future.

SEVERITY RECOMMENDATION: Low - Perform when system exhibits above symptoms

PARTS REQUIRED (HARDWARE/SOFTWARE): None

Appendix A: APX and XTS Series Portable Radios Radio Cleaning Best Practices Guide

PURPOSE

This Best Practices Guide describes the general procedures to clean dirt and debris from the external surfaces of an APX or an XTS portable radio. In very high debris environments, the speaker grill may trap dirt and debris, resulting in degraded audio quality and clarity, and the control top may trap debris, resulting in reduced tactile feel in the buttons, switches and knobs.

GENERAL CLEANING

For general cleaning, Motorola Solutions recommends mixing one tablespoon of mild dishwashing detergent to one gallon of water (0.5% solution) to clean the external surfaces of the radio. The solution is to be applied sparingly with a stiff, nonmetallic, short-bristled brush, making sure excess detergent does not get entrapped near the connectors, controls or crevices. The radio should be dried thoroughly with a soft, lint-free cloth. If the radio battery contact area has been exposed to water, dry and clean the radio battery contacts before attaching a battery to the radio. If the radio has been exposed to salt water (or salt spray), thoroughly rinse the radio with fresh water. If the radio has been submerged in water, shake the radio briskly so that any water trapped inside the speaker grill and microphone port can be removed. The radio should then be dried per above. Motorola Solutions also recommends wearing the radio in a carry case or inside the turnout coat (fire departments) to better protect the radio from prolong exposure to dirt, debris, heat and/or impacts.

HIGH DEBRIS ENVIRONMENTS

For high debris environments, additional cleaning steps may be needed to maintain optimal radio performance.

Speaker Grill

In high debris environments, the speaker grill may trap dirt and debris, resulting in degraded audio quality and clarity. Motorola recommends vacuuming the speaker grill to maintain optimal audio performance. Attach a crevice nozzle to a vacuum cleaner, and vacuum the speaker grill (see Figure 1). Avoid covering all the grill openings at once with the nozzle. Move the nozzle back and forth several times horizontally across the grill. Perform a "Talk/Listen" test to confirm audio performance has returned to normal. If audio issues persist, radio should be sent in for servicing.



Figure 1

Control Top

In high debris environments, the control top may trap dirt and debris, resulting in reduced tactile feel in the buttons, switches and knobs. Motorola recommends vacuuming the control top to maintain optimal tactile performance. Attach a crevice nozzle to a vacuum cleaner, and vacuum the all radio surfaces, especially the control top, to remove dirt and debris from crevices (see Figure 2). For submersible radios ("R", "I" or "XE" designators): Turn the radio upside down and place the top of the radio into the water. With the control top submerged, shake the radio vigorously to loosen dirt and debris. Vacuum again to remove dirt, debris and water.



Figure 2